

2610-FM-BWM0179 Rev. 7/2006

COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF WASTE MANAGEMENT

## RCRAinfo CM&amp;E EVALUATION - VIOLATION FORM

*EPA ID Number	PAD 004810222			EIN	
Handler Name	Kelly Run Landfill				
Street	Rt 51				
City	Elizabeth	State	PA	Zip Code	
Actual Generator Status <small>Check only if different from Notified Status</small>	LOG <input type="checkbox"/> SOG <input type="checkbox"/> GESOG <input type="checkbox"/> Closed <input type="checkbox"/> Non-Handler <input type="checkbox"/>				
Universe Change Required? <small>(Generator Status Change Required)</small>	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If YES, complete the Universe Change Section (on reverse side of this form).				
RCRA Non-Notifier?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If YES, complete the Handler Section (on reverse side of this form).				
Other Facility Information Changes?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> If YES, complete the Handler Section (on reverse side of this form).				
EVALUATION	Add <input checked="" type="checkbox"/> Update <input type="checkbox"/> Delete <input type="checkbox"/> You must provide an Evaluation Identifier (also known as the Sequence Number).				
*Evaluation Identifier	*Type CME	*Evaluation Start Date (mm/dd/yyyy) 9/14/06	*Agency S	*Responsible Person PA-JRS	*Suborganization
<small>You need to specify Day Zero for all evaluation types except CDI, CSE, FUI, SNI, and SNM, otherwise it defaults to Evaluation Start Date. For CDI, CSE, FUI, and SNI evaluations, you must select a previous CEI Start Date for the Day Zero. SNM evaluation type does not require a Day Zero.</small>			<small>Reclassified SV Date: Only applicable for SNI evaluation type, as appropriate.</small>		
Notes:					
Evaluation Indicator Field (Check all that apply): <input type="checkbox"/> Citizen Complaint <input type="checkbox"/> Multimedia Inspection <input type="checkbox"/> Sampling <input type="checkbox"/> Not Subtitle C					
Focused Coverage Areas (Use Only for Evaluation Type FCI)					
Regulation-Specific FCI					
BIF	<input type="checkbox"/> CCI	<input type="checkbox"/> CFI	<input type="checkbox"/> INC	<input type="checkbox"/> LDR	<input type="checkbox"/> PTB <input type="checkbox"/> PTX <input type="checkbox"/>
THI	<input type="checkbox"/> UIC	<input type="checkbox"/> UOI	<input type="checkbox"/> UWR	OTHER (specify):	
Routine/Standardized FCI					
CAR	<input type="checkbox"/> CPC	<input type="checkbox"/> DOS	<input type="checkbox"/> EMR	<input type="checkbox"/> IEI	<input type="checkbox"/> ISI <input type="checkbox"/> RTI <input type="checkbox"/>
Does this Evaluation Add/Update/Delete a Violation?	YES <input type="checkbox"/> NO <input type="checkbox"/>		If Yes, fill in the Violations Section(s) on page 2 of this form.		
Does this Evaluation link to a Commitment?	YES <input type="checkbox"/> NO <input type="checkbox"/>		If Yes, please use the RCRAinfo 3007 Information Requests and Commitments Form.		
Does this Evaluation link to a 3007 Request?	YES <input type="checkbox"/> NO <input type="checkbox"/>		If Yes, please use the RCRAinfo 3007 Information Requests and Commitments Form.		
OUTSTANDING VIOLATIONS COVERED BY ABOVE EVALUATION? YES <input type="checkbox"/> NO <input type="checkbox"/> If Yes, fill in information below.					
*Seq. No.	*Violation Type	*Agency	*Regulation Citation (Type + Citation) (ex. FR 262.1)	Date Determined (mm/dd/yyyy)	

\*Required Fields

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RCRAInfo CM&E EVALUATION - VIOLATION FORM						
EPA ID Number			Handler Name			
VIOLATIONS SECTION (Additional Violations can be added/updated/deleted using the RCRAInfo CM&E Additional Violations Form)						
VIOLATION <input type="checkbox"/> Add <input type="checkbox"/> Update <input type="checkbox"/> Delete			Link to Above Evaluation <input type="checkbox"/>			
Seq. No	Violation Type	Agency	Determined Date (mm/dd/yyyy)	Return to Compliance (RTC) Qualifier	Actual RTC Date (mm/dd/yyyy)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> A RTC Qualifier is required if entering an Actual RTC Date.	<input type="text"/>	
Notes:						
LINK CITATIONS TO ABOVE VIOLATION?			YES <input type="checkbox"/>	NO <input type="checkbox"/>	If Yes, fill in information below	
Citation Type	Citation		Citation Type	Citation		
<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		
VIOLATION <input type="checkbox"/> Add <input type="checkbox"/> Update <input type="checkbox"/> Delete			Link to Above Evaluation <input type="checkbox"/>			
Seq. No	Violation Type	Agency	Determined Date (mm/dd/yyyy)	Return to Compliance (RTC) Qualifier	Actual RTC Date (mm/dd/yyyy)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> A RTC Qualifier is required if entering an Actual RTC Date.	<input type="text"/>	
Notes:						
LINK CITATIONS TO ABOVE VIOLATION?			YES <input type="checkbox"/>	NO <input type="checkbox"/>	If Yes, fill in information below	
Citation Type	Citation		Citation Type	Citation		
<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>		
HANDLER SECTION (Fill out if RCRA Non-Notifier)						
Handler Name			Contact			
Street						
City			State	Zip Code		
County						
UNIVERSE CHANGE SECTION (Fill out if Universe Change Required)						
I. Indicate the Facility's current Universe(s):						
II. Indicate the new RCRAInfo Generator Universe:			LOG <input type="checkbox"/> SOG <input type="checkbox"/> CEG <input type="checkbox"/> Non-Handler <input type="checkbox"/> Closed <input type="checkbox"/>			
III. Indicate the new transporter status: (Only fill out if the facility requires a transporter status change)			Transporter <input type="checkbox"/> If the transporter box is checked, you must check at least one mode of transportation below: <input type="checkbox"/> Air <input type="checkbox"/> Water <input type="checkbox"/> Rail <input type="checkbox"/> Other <input type="checkbox"/> Highway		Non-Transporter <input type="checkbox"/> Check non-transporter if the facility is currently listed in RCRAInfo as a transporter AND no longer transports hazardous waste.	

\*Required Fields

2610-FM-BVM10179 Rev. 7/2008

RCRAINFO CM&E ADDITIONAL VIOLATIONS FORM						
(Attach to RCRAinfo CM&E Evaluation - Violation Form, if appropriate)						
EPA ID Number		Handler Name				
VIOLATION <input type="checkbox"/> Add <input type="checkbox"/> Update <input type="checkbox"/> Delete						Link to Above Evaluation <input type="checkbox"/>
Seq. No	Violation Type	Agency	Determined Date (mm/dd/yyyy)	Return to Compliance (RTC) Qualifier	Actual RTC Date (mm/dd/yyyy)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> A RTC Qualifier is required if entering an Actual RTC Date.	<input type="text"/>	
Notes:						
LINK CITATIONS TO ABOVE VIOLATION?				YES <input type="checkbox"/> NO <input type="checkbox"/>	If Yes, fill in information below	
Citation Type	Citation			Citation Type	Citation	
<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	
VIOLATION <input type="checkbox"/> Add <input type="checkbox"/> Update <input type="checkbox"/> Delete						Link to Above Evaluation <input type="checkbox"/>
Seq. No	Violation Type	Agency	Determined Date (mm/dd/yyyy)	Return to Compliance (RTC) Qualifier	Actual RTC Date (mm/dd/yyyy)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> A RTC Qualifier is required if entering an Actual RTC Date.	<input type="text"/>	
Notes:						
LINK CITATIONS TO ABOVE VIOLATION?				YES <input type="checkbox"/> NO <input type="checkbox"/>	If Yes, fill in information below	
Citation Type	Citation			Citation Type	Citation	
<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	
VIOLATION <input type="checkbox"/> Add <input type="checkbox"/> Update <input type="checkbox"/> Delete						Link to Above Evaluation <input type="checkbox"/>
Seq. No	Violation Type	Agency	Determined Date (mm/dd/yyyy)	Return to Compliance (RTC) Qualifier	Actual RTC Date (mm/dd/yyyy)	
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="checkbox"/> A RTC Qualifier is required if entering an Actual RTC Date.	<input type="text"/>	
Notes:						
LINK CITATIONS TO ABOVE VIOLATION?				YES <input type="checkbox"/> NO <input type="checkbox"/>	If Yes, fill in information below	
Citation Type	Citation			Citation Type	Citation	
<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>			<input type="text"/>	<input type="text"/>	



COMMONWEALTH OF PENNSYLVANIA

Department of Environmental Protection

Southwest Regional Office

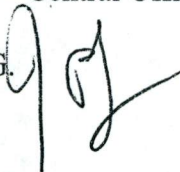
September 26, 2006

412-442-4159

**SUBJECT:** Kelly Run Landfill  
Compliance Monitoring Evaluation (CME) 2006  
Forward Township  
Allegheny County  
I.D. No. PAD00481022

**TO:** William Rarick, P.G.  
Hydrogeologist  
Waste Management – Central Office

**FROM:** Jeffrey R. Smith, P.G.  
Hydrogeologist  
Waste Management



Comments

1. There are no violations at the present time.
2. A site map is included with this submission.
3. A groundwater flow map is included with this submission.
4. At the present time there are no hazardous waste disposal activities occurring at this site. The former disposal area has been synthetically capped and vegetated.
5. Municipal waste landfilling activities continue to occur on the permitted portion of the facility.
6. Current groundwater results are included with this submission.

Enclosure

cc: Regional  
Chron  
D. Eberle  
J. Smith



## APPENDIX A

# COMPREHENSIVE GROUND-WATER MONITORING EVALUATION WORKSHEET

The following worksheets have been designed to assist the enforcement officer/technical reviewer in evaluating the ground-water monitoring system an owner/operator uses to collect and analyze samples of ground water. The focus of the worksheets is technical adequacy as it relates to obtaining and analyzing representative samples of ground water. The basis of the worksheets is the final RCRA Ground Water Monitoring Technical Enforcement Guidance Document which describes in detail the aspects of ground-water monitoring which EPA deems essential to meet the goals of RCRA. Appendix A is not a regulatory checklist. Specific technical deficiencies in the monitoring system can, however, be related to the regulations as illustrated in Figure 4.3 taken from the RCRA Ground-Water Monitoring Compliance Order Guide (COG) (included at the end of the appendix). The enforcement officer, in developing an enforcement order, should relate the technical assessment from the worksheets to the regulations using Figure 4.3 from the COG as a guide.

Comprehensive Ground-Water Monitoring Evaluation	Y/N
<b>I. Office Evaluation Technical Evaluation of the Design of the Ground-Water Monitoring System</b>	
<b>A. Review of Relevant Documents</b>	
1. What documents were obtained prior to conducting the inspection:	
a. RCRA Part A permit application?	Y
b. RCRA Part B permit application?	Y
c. Correspondence between the owner/operator and appropriate agencies or citizen's groups?	Y
d. Previously conducted facility inspection reports?	Y
e. Facility's contractor reports?	N/D
f. Regional hydrogeologic, geologic, or soil reports?	Y
g. The facility's Sampling and Analysis Plan?	Y
h. Ground-water Assessment Program Outline (or Plan, if the facility is in assessment monitoring)?	Y
i. Other (specify) _____	N

	Y/N
<b>B. Evaluation of the Owner/Operator's Hydrogeologic Assessment</b>	
1. Did the owner/operator use the following direct techniques in the hydrogeologic assessment:	
a. Logs of the soil borings/rock corings (documented by a professional geologist, soil scientist, or geotechnical engineer)?	Y
b. Materials tests (e.g., grain size analyses, standard penetration tests, etc.)?	N
c. Piezometer installation for water level measurements at different depths? d. Slug tests?	Y
e. Pump tests?	Y
f. Geochemical analyses of soil samples?	N
g. Other (specify) (e.g., hydrochemical diagrams and wash analysis)	NA
2. Did the owner/operator use the following indirect technique to supplement direct techniques data:	
a. Geophysical well logs?	N
b. Tracer studies?	N
c. Resistivity and/or electromagnetic conductance?	N
d. Seismic Survey?	N
e. Hydraulic conductivity measurements of cores?	N
f. Aerial photography?	N
g. Ground penetrating radar?	N
h. Other (specify)	N
3. Did the owner/operator document and present the raw data from the site hydrogeologic assessment?	N
4. Did the owner/operator document methods (criteria) used to correlate and analyze the information?	N
5. The owner/operator prepare the following:	
a. Narrative description of geology?	Y
b. Geologic cross sections?	Y
c. Geologic and soil maps?	Y
d. Boring/coring logs?	Y
e. Structure contour maps of the differing water bearing zones and confining layer?	N
f. Narrative description and calculation of ground-water flows?	N

	Y/N
g. Water table/potentiometric map?	
h. Hydrologic cross sections?	Y
6. Did the owner/operator obtain a regional map of the area and delineate the facility?	Y
If yes, does this map illustrate:	
a. Surficial geology features?	Y
b. Streams, rivers, lakes, or wetlands near the facility?	Y
c. Discharging or recharging wells near the facility?	Y
7. Did the owner/operator obtain a regional hydrogeologic map?	
If yes, does this hydrogeologic map indicate:	
a. Major areas of recharge/discharge?	N
b. Regional ground-water flow direction?	N
c. Potentiometric contours which are consistent with observed water level elevations?	N
8. Did the owner/operator prepare a facility site map?	
If yes, does the site map show:	
a. Regulated units of the facility (e.g., landfill areas, impoundments)?	Y
b. Any seeps, springs, streams, ponds, or wetlands?	Y
c. Location of monitoring wells, soil borings, or test pits?	Y
d. How many regulated units does the facility have? _____	7
If more than one regulated unit then,	
• Does the waste management area encompass all regulated units?	
• Is a waste management area delineated for each regulated unit?	N/A
C. Characterization of Subsurface Geology of Site	
1. Soil boring/test pit program:	
a. Were the soil borings/test pits performed under the supervision of a qualified professional?	Y
b. Did the owner/operator provide documentation for selecting the spacing for borings?	Y
c. Were the borings drilled to the depth of the first confining unit below the uppermost zone of saturation or ten feet into bedrock?	Y
d. Indicate the method(s) of drilling:	/



		Y/N
Auger (hollow or solid stem)	<u>Y</u>	
Mud rotary	<u>N</u>	
Reverse rotary	<u>N</u>	
Cable tool	<u>N</u>	
Jetting	<u>N</u>	
Other (specify) _____		
e. Were continuous sample corings taken?		<u>Y</u>
f. How were the samples obtained (checked method[s])		<u>Y</u>
• Split spoon	<u>Y</u>	
• Shelby tube, or similar	<u>N</u>	
• Rock coring	<u>Y</u>	
• Ditch sampling	<u>N</u>	
• Other (explain) _____		
g. Were the continuous sample corings logged by a qualified professional in geology?		<u>Y</u>
h. Does the field boring log include the following information:		<u>Y</u>
• Hole name/number?		<u>Y</u>
• Date started and finished?		<u>Y</u>
• Driller's name?		<u>Y</u>
• Hole location (i.e., map and elevation)?		<u>Y</u>
• Drill rig type and bit/auger size?		<u>Y</u>
• Gross petrography (e.g., rock type) of each geologic unit?		<u>Y</u>
• Gross mineralogy of each geologic unit?		<u>Y</u>
• Gross structural interpretation of each geologic unit and structural features (e.g., fractures, gouge material, solution channels, buried streams or valleys, identification of depositional material)?		<u>Y</u>
• Development of soil zones and vertical extent and description of soil type?		<u>Y</u>
• Depth of water bearing unit(s) and vertical extent of each?		<u>Y</u>
• Depth and reason for termination of borehole?		<u>Y</u>
• Depth and location of any contaminant encountered in borehole?		<u>Y</u>
• Sample location/number?		<u>N</u>
• Percent sample recovery?		<u>N</u>
• Narrative descriptions of:		<u>N</u>
—Geologic observations?		<u>Y</u>
—Drilling observations?		<u>Y</u>
i. Were the following analytical tests performed on the core samples:		<u>Y</u>
• Mineralogy (e.g., microscopic tests and x-ray diffraction)?		<u>N</u>
• Petrographic analysis:		<u>N</u>
—degree of crystallinity and cementation of matrix?		<u>N</u>
—degree of sorting, size fraction (i.e., sieving), textural variations?		<u>Y</u>
—rock type(s)?		<u>N</u>

	Y/N
—soil type?	
—approximate bulk geochemistry?	Y
—existence of microstructures that may effect or indicate fluid flow?	N
• Falling head tests?	N
• Static head tests?	N
• Settling measurements?	N
• Centrifuge tests?	N
• Column drawings?	N
<b>D. Verification of Subsurface Geological Data</b>	
1. Has the owner/operator used indirect geophysical methods to supplement geological conditions between borehole locations?	N
2. Do the number of borings and analytical data indicate that the confining layer displays a low enough permeability to impede the migration of contaminants to any stratigraphically low water-bearing units?	N
3. Is the confining layer laterally continuous across the entire site?	N
4. Did the owner/operator consider the chemical compatibility of the site-specific waste types and the geologic materials of the confining layer?	N
5. Did the geologic assessment address or provide means for resolution of any information gaps of geologic data?	N
6. Do the laboratory data corroborate the field data for petrography?	N/A
7. Do the laboratory data corroborate the field data for mineralogy and subsurface geochemistry?	N/A
<b>E. Presentation of Geologic Data</b>	
1. Did the owner/operator present geologic cross sections of the site?	Y
2. Do cross sections:	
a. identify the types and characteristics of the geologic materials present?	Y
b. define the contact zones between different geologic materials?	Y
c. note the zones of high permeability or fracture?	Y
d. give detailed borehole information including:	Y

	Y/N
• location of borehole?	Y
• depth of termination?	Y
• location of screen (if applicable)?	Y
• depth of zone(s) of saturation?	Y
• backfill procedure?	Y
3. Did the owner/operator provide a topographic map which was constructed by a licensed surveyor?	N
4. Does the topographic map provide:	
a. contours at a maximum interval of two-feet?	NA
b. locations and illustrations of man-made features (e.g., parking lots, factory buildings, drainage ditches, storm drain, pipelines, etc.)?	NA
c. descriptions of nearby water bodies?	NA
d. descriptions of off-site wells?	NA
e. site boundaries?	NA
f. individual RCRA units?	NA
g. delineation of the waste management area(s)?	NA
h. well and boring locations?	NA
5. Did the owner/operator provide an aerial photograph depicting the site and adjacent off-site features?	N
6. Does the photograph clearly show surface water bodies, adjacent municipalities, and residences and are these clearly labelled?	N
<b>F. Identification of Ground-Water Flowpaths</b>	
1. Ground-water flow direction	
a. Was the well casing height measured by a licensed surveyor to the nearest 0.01 feet?	Y
b. Were the well water level measurements taken within a 24 hour period?	N
c. Were the well water level measurements taken to the nearest 0.01 feet?	N
d. Were the well water levels allowed to stabilize after construction and development for a minimum of 24 hours prior to measurements?	N
e. Was the water level information obtained from (check appropriate one):	
• multiple piezometers placed in single borehole? _____	
• vertically nested piezometers in closely spaced separate _____	
• boreholes? _____	
• monitoring wells? _____	



	Y/N
f. Did the owner/operator provide construction details for the piezometers?	NA
g. How were the static water levels measured (check method[s]).	
• Electric water sounder <u>✓</u>	
• Wetted tape <u>      </u>	
• Air line <u>      </u>	
• Other (explain) <u>      </u>	
h. Was the well water level measured in wells with equivalent screened intervals at an equivalent depth below the saturated zone?	
i. Has the owner/operator provided a site water table (potentiometric) contour map?	Y
If yes,	N
• Do the potentiometric contours appear logical and accurate based on topography and presented data? (Consult water level data)	NA
• Are ground-water flow-lines indicated?	
• Are static water levels shown?	↓
• Can hydraulic gradients be estimated?	
j. Did the owner/operator develop hydrologic cross sections of the vertical flow component across the site using measurements from all wells?	N
k. Do the owner/operator's flow nets include:	
• piezometer locations?	↓
• depth of screening?	
• width of screening?	↓
• measurements of water levels from all wells and piezometers?	✓
2. Seasonal and temporal fluctuations in ground-water	
a. Do fluctuations in static water levels occur? If yes, are the fluctuations caused by any of the following:	Y
—Off-site well pumping	N
—Tidal processes or other intermittent natural variations (e.g., river stage, etc.)	N
—On-site well pumping	N
—Off-site, on-site construction or changing land use patterns	N
—Deep well injection	N
—Seasonal variations	Y
—Other (specify) <u>      </u>	NA
b. Has the owner/operator documented sources and patterns that contribute to or affect the ground-water patterns below the waste management?	N
c. Do water level fluctuations alter the general ground-water gradients and flow directions?	Y
d. Based on water level data, do any head differentials occur that may indicate a vertical flow component in the saturated zone?	N

	Y/N
e. Did the owner/operator implement means for gauging long term effects on water movement that may result from on-site or off-site construction or changes in land-use patterns?	N
3. Hydraulic conductivity	
a. How were hydraulic conductivities of the subsurface materials determined?	N
• Single-well tests (slug tests)?	
• Multiple-well tests (pump tests)	
• Other (specify) _____	
b. If single-well tests were conducted, was it done by:	
• Adding or removing a known volume of water?	
• Pressurizing well casing?	N/A
c. If single well tests were conducted in a highly permeable formation, were pressure transducers and high-speed recording equipment used to record the rapidly changing water levels?	
d. Since single well tests only measure hydraulic conductivity in a limited area, were enough tests run to ensure a representative measure of conductivity in each hydrogeologic unit?	
e. Is the owner/operator's slug test data (if applicable) consistent with existing geologic information (e.g., boring logs)?	
f. Were other hydraulic conductivity properties determined?	N
g. If yes, provide any of the following data, if available:	
• Transmissivity	N/A
• Storage coefficient	
• Leakage	
• Permeability	
• Porosity	
• Specific capacity	
• Other (specify) _____	
4. Identification of the uppermost aquifer	
a. Has the extent of the uppermost saturated zone (aquifer) in the facility area been defined? If yes,	
• Are soil boring/test pit logs included?	
• Are geologic cross-sections included?	
b. Is there evidence of confining (competent, unfractured, continuous, and low permeability) layers beneath the site? If yes,	
• how was continuity demonstrated? _____	
c. What is hydraulic conductivity of the confining unit (if present)? CM/Sec How was it determined?	

	Y/N
<p>d. Does potential for other hydraulic communication exist (e.g., lateral discontinuity between geologic units, facies changes, fracture zones, cross cutting structures, or chemical corrosion/alteration of geologic units by leachage? If yes or no, what is the rationale?</p> <p><u>Surfaced Mining in area</u></p>	<p>Y</p>
<p><b>G. Office Evaluation of the Facility's Ground-Water Monitoring System—Monitoring Well Design and Construction:</b></p> <p>These questions should be answered for each different well design present at the facility.</p> <p><b>1. Drilling Methods</b></p> <p>a. What drilling method was used for the well?</p> <ul style="list-style-type: none"> <li>• Hollow-stem auger <input type="checkbox"/></li> <li>• Solid-stem auger <input type="checkbox"/></li> <li>• Mud rotary <input type="checkbox"/></li> <li>• Air rotary <input checked="" type="checkbox"/></li> <li>• Reverse rotary <input checked="" type="checkbox"/></li> <li>• Cable tool <input type="checkbox"/></li> <li>• Jetting <input type="checkbox"/></li> <li>• Air drill w/ casing hammer <input type="checkbox"/></li> <li>• Other (specify) _____</li> </ul>	
<p>b. Were any cutting fluids (including water) or additives used during drilling? If yes, specify:</p> <ul style="list-style-type: none"> <li>• Type of drilling fluid _____</li> <li>• Source of water used <u>Public</u></li> <li>• Foam _____</li> <li>• Polymers _____</li> <li>• Other _____</li> </ul>	<p>Y</p>
<p>c. Was the cutting fluid, or additive, identified?</p>	
<p>d. Was the drilling equipment steam-cleaned prior to drilling the well?</p> <ul style="list-style-type: none"> <li>• Other methods _____</li> </ul>	
<p>e. Was compressed air used during drilling? If yes,</p> <ul style="list-style-type: none"> <li>• was the air filtered to remove oil?</li> </ul>	
<p>f. Did the owner/operator document procedure for establishing the potentiometric surface? If yes,</p> <ul style="list-style-type: none"> <li>• how was the location established?</li> </ul>	
<p>g. Formation samples</p>	<p>Y</p>



	Y/N
• Were formation samples collected initially during drilling?	Y
• Were any cores taken continuous?	Y
• If not, at what interval were samples taken?	
• How were the samples obtained? — Split spoon — Shelby tube <del>Y</del> Core drill — Other (specify)	
• Identify if any physical and/or chemical tests were performed on the formation samples (specify) <u>NA</u>	
<b>2. Monitoring Well Construction Materials</b>	
a. Identify construction materials (by number) and diameters (ID/OD)	
	<u>Material</u> <u>Diameter</u>
• Primary Casing	<u>PVC</u> <u>4"</u>
• Secondary or outside casing (double construction)	<u>Steel</u> <u>6"</u>
• Screen	<u>PVC</u> <u>4"</u>
b. How are the sections of casing and screen connected?	
• Pipe sections threaded	
• Couplings (friction) with adhesive or solvent	Y
• Couplings (friction) with retainer screws	N
• Other (specify)	N
c. Were the materials steam-cleaned prior to installation?	
• If no, how were the materials cleaned?	Y
<b>3. Well Intake Design and Well Development</b>	
a. Was a well intake screen installed?	
• What is the length of the screen for the well?	
• Is the screen manufactured?	
b. Was a filter pack installed?	
• What kind of filter pack was employed?	
• Is the filter pack compatible with formation materials?	
• How was the filter pack installed?	

	• What are the dimensions of the filter pack?	
	• Has a turbidity measurement of the well water ever been made?	N
	• Have the filter pack and screen been designed for the insitu materials?	Y
	c. Well development	
	• Was the well developed?	Y
	• What technique was used for well development?	
	<input checked="" type="checkbox"/> Surge block <input checked="" type="checkbox"/> Bailer <input type="checkbox"/> Air surging <input type="checkbox"/> Water pumping <input type="checkbox"/> Other (specify) _____	
	4. Annular Space Seals	
	a. What is the annular space in the saturated zone directly above the filter pack filled with: <input checked="" type="checkbox"/> Sodium bentonite (specify type and grit) <input type="checkbox"/> Cement (specify neat or concrete) <input type="checkbox"/> Other (specify) _____	
	b. Was the seal installed by: <input checked="" type="checkbox"/> Dropping material down the hole and tamping <input type="checkbox"/> Dropping material down the inside of hollow-stem auger <input type="checkbox"/> Tremie pipe method <input type="checkbox"/> Other (specify) _____	
	c. Was a different seal used in the unsaturated zone? If yes, _____	
	• Was this seal made with?	Y
	<input checked="" type="checkbox"/> Sodium bentonite (specify type and grit) <input checked="" type="checkbox"/> Cement (specify neat or concrete) - Other (specify) _____	
	• Was this seal installed by?	
	<input checked="" type="checkbox"/> Dropping material down the hole and tamping <input type="checkbox"/> Dropping material down the inside of hollow stem auger <input type="checkbox"/> Other (specify) _____	
	d. Is the upper portion of the borehole sealed with a concrete cap to prevent infiltration from the surface?	Y
	e. Is the well fitted with an above-ground protectivedevice and bumper guards?	Y
	f. Has the protective cover been installed with locks to prevent tampering?	Y

	Y/N
<b>H. Evaluation of the Facility's Detection Monitoring Program</b>	
1. Placement of Downgradient Detection Monitoring Wells	
a. Are the ground-water monitoring wells or clusters located immediately adjacent to the waste management area?	Y
b. How far apart are the detection monitoring wells?	50-100
c. Does the owner/operator provide a rationale for the location of each monitoring well or cluster?	Y
d. Does the owner/operator identified the well screen lengths of each monitoring well or clusters?	
e. Does the owner/operator provide an explanation for the well screen lengths of each monitoring well or cluster?	
f. Do the actual locations of monitoring wells or clusters correspond to those identified by the owner/operator?	
2. Placement of Upgradient Monitoring Wells	
a. Has the owner/operator documented the location of each upgradient monitoring well or cluster?	Y
b. Does the owner/operator provide an explanation for the location(s) of the upgradient monitoring wells?	Y
c. What length screen has the owner/operator employed in the background monitoring well(s)?	-
d. Does the owner/operator provide an explanation for the screen length(s) chosen?	N
e. Does the actual location of each background monitoring well or cluster correspond to that identified by the owner/operator?	Y
<b>I. Office Evaluation of the Facility's Assessment Monitoring Program</b>	
1. Does the assessment plan specify:	
a. The number, location, and depth of wells?	
b. The rationale for their placement and identify the basis that will be used to select subsequent sampling locations and depths in later assessment phases?	
2. Does the list of monitoring parameters include all hazardous waste constituents from the facility?	



	Y/N
a. Does the water quality parameter list include other important indicators not classified as hazardous waste constituents?	Y
b. Does the owner/operator provide documentation for the listed wastes which are not included?	Y
3. Does the owner/operator's assessment plan specify the procedures to be used to determine the rate of constituent migration in the ground-water?	N
4. Has the owner/operator specified a schedule of implementation in the assessment plan?	N
5. Have the assessment monitoring objectives been clearly defined in the assessment plan?	Y
a. Does the plan include analysis and/or re-evaluation to determine if significant contamination has occurred in any of the detection monitoring wells?	Y
b. Does the plan provide for a comprehensive program of investigation to fully characterize the rate and extent of contaminant migration from the facility?	Y
c. Does the plan call for determining the concentrations of hazardous wastes and hazardous waste constituents in the ground water?	Y
d. Does the plan employ a quarterly monitoring program?	Y
6. Does the assessment plan identify the investigatory methods that will be used in the assessment phase?	Y
a. Is the role of each method in the evaluation fully described?	N
b. Does the plan provide sufficient descriptions of the direct methods to be used?	N
c. Does the plan provide sufficient descriptions of the indirect methods to be used?	N
d. Will the method contribute to the further characterization of the contaminant movement?	N
7. Are the investigatory techniques utilized in the assessment program based on direct methods?	Y
a. Does the assessment approach incorporate indirect methods to further support direct methods?	N
b. Will the planned methods called for in the assessment approach ultimately meet performance standards for assessment monitoring?	Y
c. Are the procedures well defined?	Y
d. Does the approach provide for monitoring wells similar in design and construction as the detection monitoring wells?	N

	Y/N
e. Does the approach employ taking samples during drilling or collecting core samples for further analysis?	
8. Are the indirect methods to be used based on reliable and accepted geophysical techniques?	N
a. Are they capable of detecting subsurface changes resulting from contaminant migration at the site?	N/A
b. Is the measurement at an appropriate level of sensitivity to detect ground-water quality changes at the site?	1
c. Is the method appropriate considering the nature of the subsurface materials?	
d. Does the approach consider the limitations of these methods?	
e. Will the extent of contamination and constituent concentration be based on direct methods and sound engineering judgment? (Using indirect methods to further substantiate the findings.)	
9. Does the assessment approach incorporate any mathematical modeling to predict contaminant movement?	
a. Will site specific measurements be utilized to accurately portray the subsurface?	
b. Will the derived data be reliable?	
c. Have the assumptions been identified?	
d. Have the physical and chemical properties of the site-specific wastes and hazardous waste constituents been identified?	
J. Conclusions	
1. Subsurface geology	
a. Has sufficient data been collected to adequately define petrography and petrographic variation?	Y
b. Has the subsurface geochemistry been adequately defined?	N
c. Was the boring/coring program adequate to define subsurface geologic variation?	Y
d. Was the owner/operator's narrative description complete and accurate in its interpretation of the data?	Y
e. Does the geologic assessment address or provide means to resolve any information gaps?	N
2. Ground-water flowpaths	
a. Did the owner/operator adequately establish the horizontal and vertical components of ground-water flow?	N

	Y/N
b. Were appropriate methods used to establish ground-water flowpaths?	N
c. Did the owner/operator provide accurate documentation?	Y
d. Are the potentiometric surface measurements valid?	Y
e. Did the owner/operator adequately consider the seasonal and temporal effects on the ground-water?	N
f. Were sufficient hydraulic conductivity tests performed to document lateral and vertical variation in hydraulic conductivity in the entire hydrogeologic subsurface below the site?	N
<b>3. Uppermost Aquifer</b>	
a. Did the owner/operator adequately define the upper-most aquifer?	N
<b>4. Monitoring Well Construction and Design</b>	
a. Do the design and construction of the owner/operator's ground-water monitoring wells permit depth discrete ground-water samples to be taken?	Y
b. Are the samples representative of ground-water quality?	
c. Are the ground-water monitoring wells structurally stable?	
d. Does the ground-water monitoring well's design and construction permit an accurate assessment of aquifer characteristics?	
<b>5. Detection Monitoring</b>	
a. Downgradient Wells <ul style="list-style-type: none"> <li>Do the location, and screen lengths of the ground-water monitoring wells or clusters in the detection monitoring system allow the immediate detection of a release of hazardous waste or constituents from the hazardous waste management area to the uppermost aquifer?</li> </ul>	
b. Upgradient Wells <ul style="list-style-type: none"> <li>Do the location and screen lengths of the upgradient (background) ground-water monitoring wells ensure the capability of collecting ground-water samples representative of upgradient (background) ground-water quality including any ambient heterogenous chemical characteristics?</li> </ul>	
<b>6. Assessment Monitoring</b>	
a. Has the owner/operator adequately characterized site hydrogeology to determine contaminant migration?	
b. Is the detection monitoring system adequately designed and constructed to immediately detect any contaminant release?	✓

	Y/N
c. Are the procedures used to make a first determination of contamination adequate?	
d. Is the assessment plan adequate to detect, characterize, and track contaminant migration?	Y
e. Will the assessment monitoring wells, given site hydrogeologic conditions, define the extent and concentration of contamination in the horizontal and vertical planes?	
f. Are the assessment monitoring wells adequately designed and constructed?	
g. Are the sampling and analysis procedures adequate to provide true measures of contamination?	N
h. Do the procedures used for evaluation of assessment monitoring data result in determinations of the rate of migration, extent of migration, and hazardous constituent composition of the contaminant plume?	N
i. Are the data collected at sufficient frequency and duration to adequately determine the rate of migration?	Y
j. Is the schedule of implementation adequate?	
k. Is the owner/operator's assessment monitoring plan adequate?	
• If the owner/operator had to implement his assessment monitoring plan, was it implemented satisfactorily?	
<b>II. Field Evaluation</b>	
<b>A. Ground-Water Monitoring System</b>	
1. Are the numbers, depths, and locations of monitoring wells in agreement with those reported in the facility's monitoring plan? (See Section 3.2.3.)	
<b>B. Monitoring Well Construction</b>	
1. Identify construction material material diameter	
a. Primary Casing <u>PVC</u>	
b. Secondary or outside casing <u>Steel</u>	
2. Is the upper portion of the borehole sealed with concrete to prevent infiltration from the surface?	
3. Is the well fitted with an above-ground protective device?	
4. Is the protective cover fitted with locks to prevent tampering? If a facility utilizes more than a single well design, answer the above questions for each well design?	

	Y/N
<b>III. Review of Sample Collection Procedures</b>	
<b>A. Measurement of Well Depths /Elevation</b>	
1. Are measurements of both depth to standing water and depth to the bottom of the well made?	N
2. Are measurements taken to the 0.01 feet?	Y
3. What device is used?	Tape
4. Is there a reference point established by a licensed surveyor?	Y
5. Is the measuring equipment properly cleaned between well locations to prevent cross contamination? -	Y
<b>B. Detection of Immiscible Layers</b>	
1. Are procedures used which will detect light phase immiscible layers?	N/A
2. Are procedures used which will detect heavy phase immiscible layers?	
<b>C. Sampling of Immiscible Layers</b>	
1. Are the immiscible layers sampled separately prior to well evacuation?	
2. Do the procedures used minimize mixing with watersoluble phases?	✓
<b>D. Well Evacuation</b>	
1. Are low yielding wells evacuated to dryness?	Y
2. Are high yielding wells evacuated so that at least three casing volumes are removed?	Y
3. What device is used to evacuate the wells?	pump
4. If any problems are encountered (e.g., equipment malfunction) are they noted in a field logbook?	N

	Y/N
<b>E. Sample Withdrawal</b>	
1. For low yielding wells, are samples for volatiles, pH, and oxidation/reduction potential drawn first after the well recovers?	N
2. Are samples withdrawn with either fluorocarbon/resins or stainless steel (316, 304 or 2205) sampling devices?	
3. Are sampling devices either bottom valve bailers or positive gas displacement bladder pumps?	
4. If bailers are used, is fluorocarbon/resin coated wire, single strand stainless steel wire, or monofilament used to raise and lower the bailer?	
5. If bladder pumps are used, are they operated in a continuous manner to prevent aeration of the sample?	
6. If bailers are used, are they lowered slowly to prevent degassing of the water?	
7. If bailers are used, are the contents transferred to the sample container in a way that minimizes agitation and aeration?	
8. Is care taken to avoid placing clean sampling equipment on the ground or other contaminated surfaces prior to insertion into the well?	
9. If dedicated sampling equipment is not used, is equipment disassembled and thoroughly cleaned between samples?	
10. If samples are for inorganic analysis, does the cleaning procedure include the following sequential steps:	
a. Dilute acid rinse (HNO <sub>3</sub> or HCl)?	
11. If samples are for organic analysis, does the cleaning procedure include the following sequential steps:	
a. Nonphosphate detergent wash?	
b. Tap water rinse?	↓
c. Distilled/deionized water rinse?	Y
d. Acetone rinse?	N
e. Pesticide-grade hexane rinse?	N

	Y/N
12. Is sampling equipment thoroughly dry before use?	N
13. Are equipment blanks taken to ensure that sample cross-contamination has not occurred?	Y
14. If volatile samples are taken with a positive gas displacement bladder pump, are pumping rates below 100 ml/min?	NA
<b>F. In-situ or Field Analyses</b>	
1. Are the following labile (chemically unstable) parameters determined in the field:	
a. pH?	N
b. Temperature?	
c. Specific conductivity?	
d. Redox potential?	
e. Chlorine?	
f. Dissolved oxygen?	
g. Turbidity?	
h. Other (specify) _____	
2. For in-situ determinations, are they made after well evacuation and sample removal?	
3. If sample is withdrawn from the well, is parameter measured from a split portion?	
4. Is monitoring equipment calibrated according to manufacturers' specifications and consistent with SW-846?	
5. Is the date, procedure, and maintenance for equipment calibration documented in the field logbook?	
<b>IV. Review of Sample Preservation and Handling Procedures</b>	
<b>A. Sample Containers</b>	
1. Are samples transferred from the sampling device directly to their compatible containers?	Y



	Y/N
2. Are sample containers for metals (inorganics) analyses polyethylene with polypropylene caps?	X
3. Are sample containers for organics analysis glass bottles with fluorocarbonresin-lined caps?	Y
4. If glass bottles are used for metals samples are the caps fluorocarbonresin-lined?	Y
5. Are the sample containers for metal analyses cleaned using these sequential steps:	
a. Nonphosphate detergent wash?	
b. 1:1 nitric acid rinse?	N
c. Tap water rinse?	
d. 1:1 hydrochloric acid rinse?	
e. Tap water rinse?	
f. Distilled/deionized water rinse?	
6. Are the sample containers for organic analyses cleaned using these sequential steps:	
a. Nonphosphate detergent/hot water wash?	
b. Tap water rinse?	
c. Distilled/deionized water rinse?	
d. Acetone rinse?	
e. Pesticide-grade hexane rinse?	
7. Are trip blanks used for each sample container type to verify cleanliness?	
<b>B. Sample Preservation Procedures</b>	
1. Are samples for the following analyses cooled to 4°C:	
a. TOC?	
b. TOX?	
c. Chloride?	
d. Phenols?	
e. Sulfate?	
f. Nitrate?	
g. Coliform bacteria?	
h. Cyanide?	
i. Oil and grease?	
j. Hazardous constituents ( ) 261, Appendix VIII)?	✓

	Y/N
2. Are samples for the following analyses field acidified to pH <2 with HNO <sub>3</sub> :	
a. Iron?	Y
b. Manganese?	Y
c. Sodium?	Y
d. Total metals?	Y
e. Dissolved metals?	Y
f. Fluoride?	Y
g. Endrin?	Y
h. Lindane?	N/A
i. Methoxychlor?	
j. Toxaphene?	
k. 2,4, D?	
l. 2,4,5 TP Silvex?	
m. Radium?	
n. Gross alpha?	
o. Gross beta?	
3. Are samples for the following analyses field acidified to pH <2 with H <sub>2</sub> SO <sub>4</sub> :	
a. Phenols?	
b. Oil and grease?	↓
4. Is the sample for TOC analyses field acidified to pH <2 with HCl?	Y
5. Is the sample for TOX analysis preserved with 1 ml of 1.1 M sodium sulfite?	Y
6. Is the sample for cyanide analysis preserved with NaOH to pH >12?	N/A
<b>C. Special Handling Considerations</b>	
1. Are organic samples handled without filtering?	N
2. Are samples for volatile organics transferred to the appropriate vials to eliminate headspace over the sample?	N/A
3. Are samples for metal analysis split into two portions?	Y
4. Is the sample for dissolved metals filtered through a 0.45 micron filter?	Y
5. Is the second portion not filtered and analyzed for total metals?	Y
6. Is one equipment blank prepared each day of ground-water sampling?	Y

V. Review of Chain-of-Custody Procedures	Y/N
<b>A. Sample Labels</b>	
1. Are sample labels used?	Y
2. Do they provide the following information:	
a. Sample identification number?	
b. Name of collector?	
c. Date and time of collection?	
d. Place of collection?	
e. Parameter(s) requested and preservatives used?	
3. Do they remain legible even if wet?	↓
<b>B. Sample Seals</b>	
1. Are sample seals placed on those containers to ensure samples are not altered?	N
<b>C. Field Logbook</b>	
1. Is a field logbook maintained?	
2. Does it document the following:	
a. Purpose of sampling (e.g., detection or assesment)?	
b. Location of well(s)?	
c. Total depth of each well?	
d. Static water level depth and measurement technique?	
e. Presence of immiscible layers and detection method?	
f. Collection method for immiscible layers and sample identification numbers?	
g. Well evacuation procedures?	
h. Sample withdrawal procedure?	
i. Date and time of collection?	
j. Well sampling sequence?	
k. Types of sample containers and sample identification number(s)?	
l. Preservative(s) used?	
m. Parameters requested?	
n. Field analysis data and method(s)?	
o. Sample distribution and transporter?	
p. Field observations?	↓

	Y/N
—Unusual well recharge rates?	N
—Equipment malfunction(s)?	
—Possible sample contamination?	
—Sampling rate?	
<b>D. Chain-of-Custody Record</b>	
1. Is a chain-of-custody record included with each sample?	
2. Does it document the following:	
a. Sample number?	
b. Signiture of collector?	
c. Date and time of collection?	
d. Sample type?	
e. Station location?	
f. Number of containers?	
g. Parameters requested?	
h. Signatures of persons involved in chain-of-custody?	
i. Inclusive dates of custody?	
<b>E. Sample Analysis Request Sheet</b>	
1. Does a sample analysis request sheet accompany each sample?	X
2. Does the request sheet document the following:	
a. Name of person receiving the sample?	
b. Date of sample receipt?	
c. Duplicates?	
d. Analysis to be performed?	
<b>IV. Review of Quality Assurance/Quality Control</b>	
A. Is the validity and reliability of the laboratory and field generated data ensured by a QA/QC program?	
B. Does the QA/QC program include:	
1. Documentation of any deviation from approved procedures?	

	Y/N
2. Documentation of analytical results for:	
a. Blanks?	Y
b. Standards?	
c. Duplicates?	
d. Spiked samples?	
e. Detectable limits for each parameter being analyzed?	
C. Are approved statistical methods used?	Y
D. Are QC samples used to correct data?	Y
E. Are all data critically examined to ensure it has been properly calculated and reported?	Y
<b>VII. Surficial Well Inspection and Field Observation</b>	
A. Are the wells adequately maintained?	Y
B. Are the monitoring wells protected and secure?	
C. Do the wells have surveyed casing elevations?	
D. Are the ground-water samples turbid?	
E. Have all physical characteristics of the site been noted in the inspector's field notes (i.e., surface waters, topography, surface features)?	
F. Has a site sketch been prepared by the field inspector with scale, north arrow, location(s) of buildings, location(s) of regulated units, locations of monitoring wells, and a rough depiction of the site drainage pattern?	

**VIII. Conclusions**

A. Is the facility currently operating under the correct monitoring program according to the statistical analyses performed by the current operator?

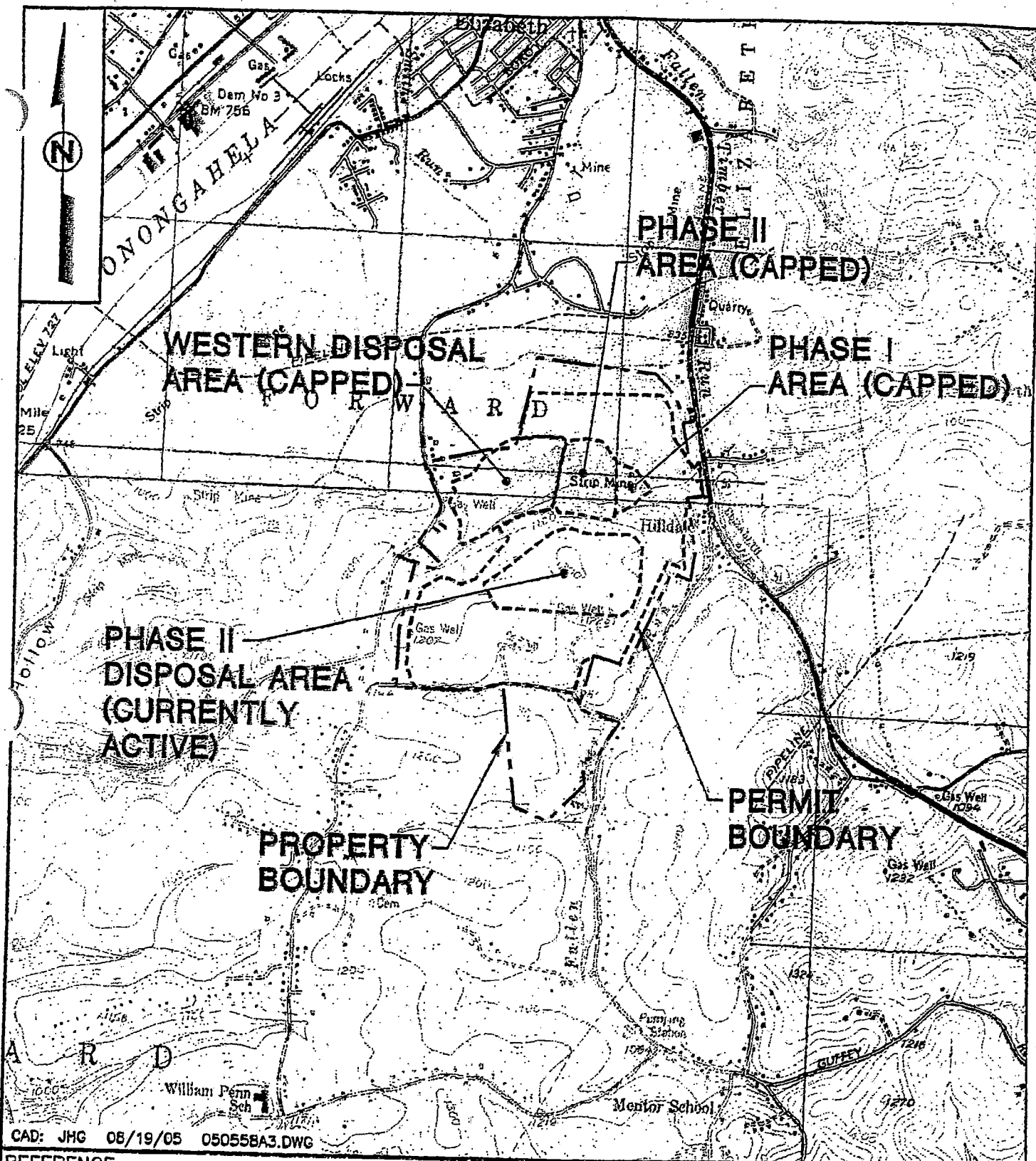
y

B. Does the ground-water monitoring system, as designed and operated, allow for detection or assessment of any possible ground-water contamination caused by the facility?

y

C. Does the sampling and analysis procedures permit the owner/operator to detect and, where possible, assess the nature and extent of a release of hazardous constituents to ground water from the monitored hazardous waste management facility?

y



#### REFERENCE

U.S.G.S. 7.5 MINUTE TOPOGRAPHIC  
QUADRANGLE MAPS OF GLASSPORT,  
MCKESSPORT, MONOGAHELA AND DONORA, PA

#### SCALE

2000 0 2000 FT.



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U.S.G.S. SITE LOCATION MAP

KELLY RUN LANDFILL  
PERMIT NO. 100663

DWN. BY: JHG

SCALE:

DATE:

PROJECT NO:

CHKD. BY: RLD

AS SHOWN


08/19/05

050558

FIGURE NO 1

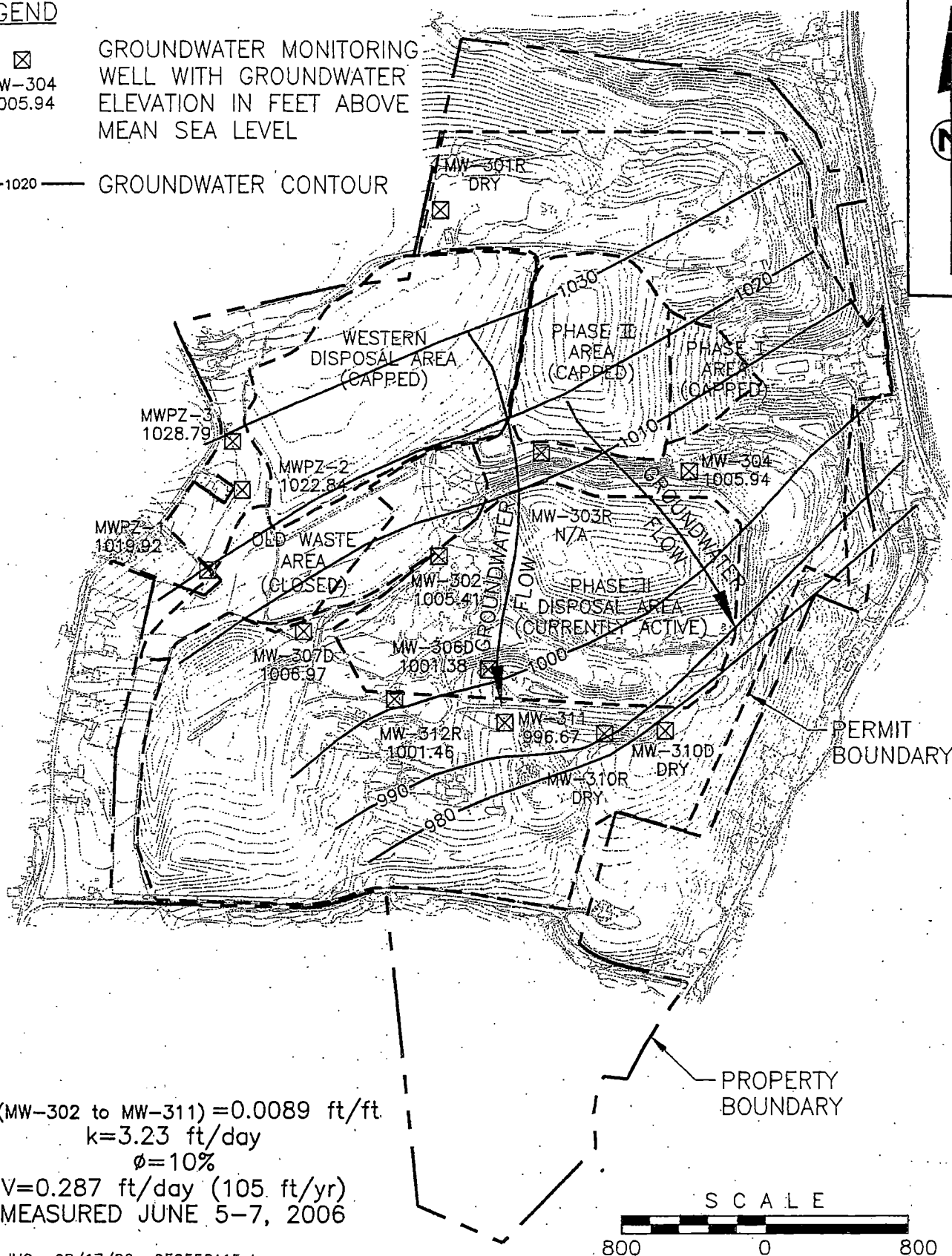


# LEGEND

  
 MW-304  
 1005.94

GROUNDWATER MONITORING  
 WELL WITH GROUNDWATER  
 ELEVATION IN FEET ABOVE  
 MEAN SEA LEVEL

1020 ——— GROUNDWATER CONTOUR



$i$  (MW-302 to MW-311) = 0.0089 ft/ft  
 $k$  = 3.23 ft/day  
 $\phi$  = 10%  
 $V$  = 0.287 ft/day (105 ft/yr)  
 MEASURED JUNE 5-7, 2006

CAD: JHG 08/17/06 050558A15.dwg



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BENWOOD LIMESTONE  
 POTENTIOMETRIC MAP  
 KELLY RUN LANDFILL  
 PERMIT NO. 100663

DWN. BY: JHG

SCALE:

DATE:

PROJECT NO:

CHKD. BY: RCD

AS SHOWN

08/17/06

050558

FIGURE NO. 2

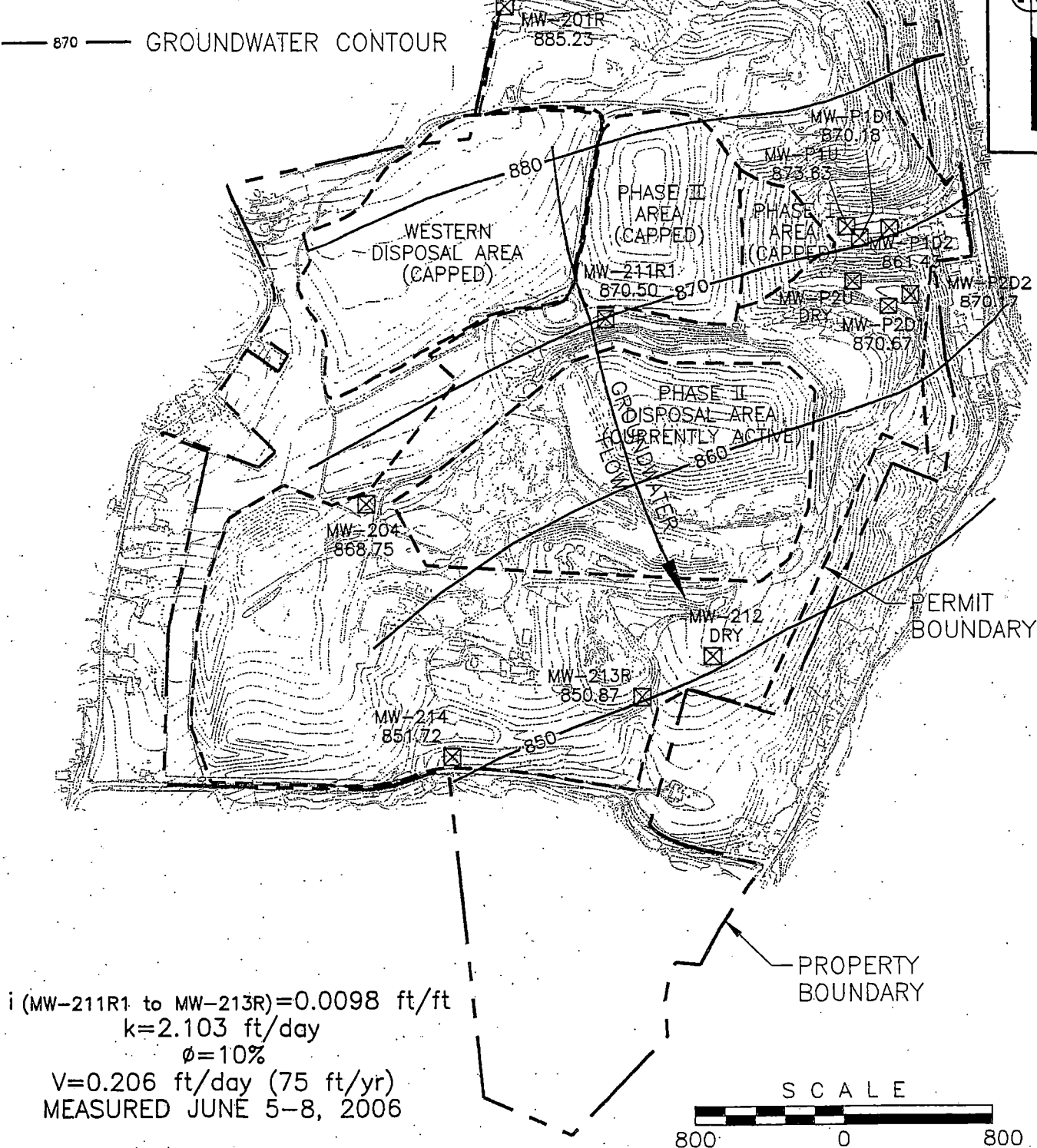
# LEGEND

☒  
MW-P2D1  
870.67

GROUNDWATER MONITORING  
WELL WITH GROUNDWATER  
ELEVATION IN FEET ABOVE  
MEAN SEA LEVEL

— 870 — GROUNDWATER CONTOUR

N



i (MW-211R1 to MW-213R) = 0.0098 ft/ft  
k = 2.103 ft/day  
φ = 10%  
V = 0.206 ft/day (75 ft/yr)  
MEASURED JUNE 5-8, 2006

CAD: JHG 08/17/06 050558A16.dwg



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PITTSBURGH COAL  
POTENTIOMETRIC MAP  
KELLY RUN LANDFILL  
PERMIT NO. 100663

DWN BY: JHG

SCALE:

DATE:

PROJECT NO:

FIGURE NO. 3

CHKD. BY: RCA

AS SHOWN

08/17/06

050558

WASTE MANAGEMENT

KELLY RUN SANITATION, INC. LANDFILL  
Forward Township, Allegheny County

PADEP ID No. 100663

APPENDIX A

SECOND QUARTER 2006

GROUNDWATER MONITORING  
FORM 19 RESULTS

Submitted  
August 2006


 Date Prepared/Revised  
 6/30/2006

DEP USE ONLY

Date Received

# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-10

☐ Well ☒ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 34 . 50 "

Longitude: 79 ° 53 ' 16 . 00 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 14:55

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-004

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	SP-10
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	254	SM4500-CO2D
Calcium, Total*	121	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	4	EPA 300.0
Fluoride	0.1	EPA 300.0
Iron (µg/l), Total	1330	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	47.6	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	50	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	3.91	EPA 300.0
pH (standard units), Field*	7.28	
pH (standard units), Laboratory*	8.03	SM4500-H+B
Potassium, Total*	1.8	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	7.9	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	808.7	
Specific Conductance (µmhos/cm), Laboratory*	813	EPA 120.1
Sulfate*	189	EPA 300.0
Total Alkalinity*	257	SM 18 2320B
Total Dissolved Solids	552	SM2540-C
Total Organic Carbon*	1	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	45.2	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

<sup>†</sup> Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	SP-10
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

4/12/2005

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284.

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-11

☐ Well ☒ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 41 . 10 "

Longitude: 79 ° 53 ' 21 . 00 "

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

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**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-W

☐ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 5 . 10 "

Longitude: 79 ° 52 ' 40 . 00 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 12:15

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-007

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.



I.D. No.	100663
Monitoring Point No.	SP-W
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.17	EPA 350.1D
Bicarbonate (as Ca CO <sub>3</sub> )*	171	SM4500-CO2D
Calcium, Total*	112	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	57	EPA 300.0
Fluoride	0.3	EPA 300.0
Iron (µg/l); Total	12300	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	38.2	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	500	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.1	EPA 300.0
pH (standard units), Field*	6.9	
pH (standard units), Laboratory*	6.89	SM4500-H+B
Potassium, Total*	2.4	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	170	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1437	
Specific Conductance (µmhos/cm), Laboratory*	1400	EPA 120.1
Sulfate*	572	EPA 300.0
Total Alkalinity*	171	SM 18 2320B
Total Dissolved Solids	1010	SM2540-C
Total Organic Carbon*	0.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	47.8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	SP-W
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

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MUNICIPAL WASTE LANDFILL  
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SS-3

☐ Well ☐ Spring ☐ Stream ☒ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 58 . 20 "

Longitude: 79 ° 53 ' 30 . 60 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 11:10

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-012

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments:

I.D. No.	100663
Monitoring Point No.	SS-3
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	488	SM4500-CO2D
Calcium, Total*	170	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	152	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	430	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	60.3	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	110	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.3	EPA 300.0
pH (standard units), Field*	6.48	
pH (standard units), Laboratory*	7.26	SM4500-H+B
Potassium, Total*	2.3	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	50.3	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1346	
Specific Conductance (µmhos/cm), Laboratory*	1350	EPA 120.1
Sulfate*	53	EPA 300.0
Total Alkalinity*	489	SM 18 2320B
Total Dissolved Solids	748	SM2540-C
Total Organic Carbon*	1.6	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	14.2	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	SS-3
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

DEPT. USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: KR-1

☐ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 1 . 40 "

Longitude: 79 ° 53 ' 29 . 70 "

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

4/11/2005

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A. SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B. FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: KR-2

☐ Well ☐ Spring ☒ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 15' 4.50"

Longitude: 79° 53' 42.00"

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft/MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

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**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ML1A ☐ Well ☐ Spring ☐ Stream ☒ Other☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: ° ' "

Longitude: ° ' "

Depth to Water Level: ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: ft./MSL

Sampling Depth: ft

Volume of Water Column: gal.

Total Well Depth: ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy):

Sample Collection Time:

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number:

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

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**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ML2A

☐ Well ☐ Spring ☐ Stream ☒ Other

☐ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: ° ' "

Longitude: ° ' "

Depth to Water Level: ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: ft./MSL

Sampling Depth: ft

Volume of Water Column: gal.

Total Well Depth: ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy):

Sample Collection Time:

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number:

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.

I.D. No.	100663
Monitoring Point No.	ST-4
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	255	SM4500-CO2D
Calcium, Total*	170	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	7	EPA 300.0
Fluoride	0.1	EPA 300.0
Iron (µg/l), Total	6930	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	85.3	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	470	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	3.64	EPA 300.0
pH (standard units), Field*	7.35	
pH (standard units), Laboratory*	8.05	SM4500-H+B
Potassium, Total*	3.6	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	23.9	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1222	
Specific Conductance (µmhos/cm), Laboratory*	1180	EPA 120.1
Sulfate*	459	EPA 300.0
Total Alkalinity*	258	SM 18 2320B
Total Dissolved Solids	886	SM2540-C
Total Organic Carbon*	1.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	755	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	ST-4
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

FORM 19  
MUNICIPAL WASTE LANDFILL  
QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ST-5

☐ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 33.00"

Longitude: 79° 53' 16.70"

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 10:25

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-014

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	ST-5
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	224	SM4500-CO2D
Calcium, Total*	121	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	101	EPA 300.0
Fluoride	0.1	EPA 300.0
Iron (µg/l), Total	680	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	38.6	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	30	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	2.24	EPA 300.0
pH (standard units), Field*	7.56	
pH (standard units), Laboratory*	8.11	SM4500-H+B
Potassium, Total*	1.4	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	51.6	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	981.5	
Specific Conductance (µmhos/cm), Laboratory*	928	EPA 120.1
Sulfate*	123	EPA 300.0
Total Alkalinity*	227	SM 18 2320B
Total Dissolved Solids	582	SM2540-C
Total Organic Carbon*	1.2	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	24.2	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ST-4

☐ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 32 . 00 "

Longitude: 79 ° 53 ' 4 . 20 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 09:50

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-013

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Cloudy.

I.D. No.	100663
Monitoring Point No.	ST-5
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

#### SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

#### SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: Benwood Spring

☐ Well ☒ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 2 . 40 "

Longitude: 79 ° 52 ' 49 . 10 "

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ Grab

Well Purged: ☐ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 14:45

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606129-001

Final Lab Analysis Completion Date: 6/16/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Slight odor.



I.D. No.	100663
Monitoring Point No.	Benwood Spring
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	7.16	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	685	SM4500-CO2D
Calcium, Total*	165	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	30	HACH 8000
Chloride*	106	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	4990	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	69.7	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	930	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.61	
pH (standard units), Laboratory*	7	SM4500-H+B
Potassium, Total*	8.3	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	77.6	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1530	
Specific Conductance (µmhos/cm), Laboratory*	1390	EPA 120.1
Sulfate*	26	EPA 300.0
Total Alkalinity*	686	SM 18 2320B
Total Dissolved Solids	846	SM2540-C
Total Organic Carbon*	10	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	20.7	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	Benwood Spring
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	5.9	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



4/12/2005

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Date Received

# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-1 ☐ Well ☒ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 49.70"

Longitude: 79° 52' 47.30"

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_ Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_ Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A. SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B. FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-2

☐ Well ☒ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 46.80"

Longitude: 79° 52' 48.00"

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 11:15

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-002

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	SP-2
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	2.74	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	525	SM4500-CO2D
Calcium, Total*	140	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	52	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	640	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	76.9	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	360	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	1.5	EPA 300.0
pH (standard units), Field*	6.86	
pH (standard units), Laboratory*	7.53	SM4500-H+B
Potassium, Total*	5.9	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	31.4	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1215	
Specific Conductance (µmhos/cm), Laboratory*	1160	EPA 120.1
Sulfate*	124	EPA 300.0
Total Alkalinity*	527	SM 18 2320B
Total Dissolved Solids	724	SM2540-C
Total Organic Carbon*	3	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	3.5	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	SP-2
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

Date Prepared/Revised  
6/30/2006

DEPT USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-3

☐ Well ☒ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 46.00"

Longitude: 79° 52' 50.00"

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 11:25

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-003

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	SP-3
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	286	SM4500-CO2D
Calcium, Total*	126	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	53	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	4800	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	88.8	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	300	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	6.16	EPA 300.0
pH (standard units), Field*	8.01	
pH (standard units), Laboratory*	8.26	SM4500-H+B
Potassium, Total*	3.9	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	24.4	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1061	
Specific Conductance (µmhos/cm), Laboratory*	1050	EPA 120.1
Sulfate*	238	EPA 300.0
Total Alkalinity*	291	SM 18 2320B
Total Dissolved Solids	704	SM2540-C
Total Organic Carbon*	2	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	116	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.



I.D. No.	100663
Monitoring Point No.	SP-3
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in µg/l)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

† Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-4

☐ Well ☒ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 43 . 50 "

Longitude: 79 ° 52 ' 53 . 00 "

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.

6/30/2006

DEP USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-5

☐ Well ☒ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 43 . 00 "

Longitude: 79 ° 52 ' 47 . 00 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 11:50

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-009

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments:

I.D. No.	100663
Monitoring Point No.	SP-5
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	300	SM4500-CO2D
Calcium, Total*	155	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	97	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	720	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	77.8	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	40	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.9	EPA 300.0
pH (standard units), Field*	7.87	
pH (standard units), Laboratory*	8.23	SM4500-H+B
Potassium, Total*	4.8	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	82.9	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1425	
Specific Conductance (µmhos/cm), Laboratory*	1400	EPA 120.1
Sulfate*	426	EPA 300.0
Total Alkalinity*	305	SM 18 2320B
Total Dissolved Solids	970	SM2540-C
Total Organic Carbon*	1.6	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	15.9	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	SP-5
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A. SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B. FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-6

☐ Well ☒ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 33 . 00 "

Longitude: 79 ° 53 ' 5 . 00 "

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: SP-8

☐ Well ☒ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 34 . 10 "

Longitude: 79 ° 53 ' 1 . 10 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 14:35

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-001

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Cloudy.

I.D. No.	100663
Monitoring Point No.	SP-8
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	229	SM4500-CO2D
Calcium, Total*	117	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	4	EPA 300.0
Fluoride	0.1	EPA 300.0
Iron (µg/l), Total	11400	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	48.7	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	220	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	3.3	EPA 300.0
pH (standard units), Field*	7.8	
pH (standard units), Laboratory*	8.16	SM4500-H+B
Potassium, Total*	2.9	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	8.4	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	770.5	
Specific Conductance (µmhos/cm), Laboratory*	747	EPA 120.1
Sulfate*	188	EPA 300.0
Total Alkalinity*	232	SM 18 2320B
Total Dissolved Solids	526	SM2540-C
Total Organic Carbon*	1.5	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	215	EPA 180.1

\* indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.



I.D. No.	100663
Monitoring Point No.	SP-8
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-P2D1
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-P2D2

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 56 . 90 "

Longitude: 79 ° 52 ' 50 . 00 "

Depth to Water Level: 93.00 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.58 ft

Elevation of Water Level: 870.17 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 3.60 gal.

Total Well Depth: 98.61 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.48

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 09:30

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606196-004

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-P2D2
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	201	SM4500-CO2D
Calcium, Total*	111	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	24	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	120	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	40.1	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	< 10	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.37	EPA 300.0
pH (standard units), Field*	6.42	
pH (standard units), Laboratory*	7.01	SM4500-H+B
Potassium, Total*	3.7	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	21.3	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	820.1	
Specific Conductance (µmhos/cm), Laboratory*	789	EPA 120.1
Sulfate*	210	EPA 300.0
Total Alkalinity*	201	SM 18 2320B
Total Dissolved Solids	546	SM2540-C
Total Organic Carbon*	1.8	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	2.9	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-P2D2
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

WASTE MANAGEMENT

KELLY RUN SANITATION, INC. LANDFILL  
Forward Township, Allegheny County

PADEP ID No. 100663

APPENDIX B

SECOND QUARTER 2006

SURFACE WATER FORM 19 QUARTERLY RESULTS  
AND  
SPRING FORM 19 QUARTERLY RESULTS

Submitted  
August 2006

N

PROPERTY  
BOUNDARY

FTR-2

SP-W

WESTERN  
DISPOSAL AREA  
(CAPPED)

PHASE II  
AREA  
(CAPPED)

BENWOOD  
PHASE I  
AREA  
(CAPPED)

KR-2

SS-3

PHASE II  
DISPOSAL AREA  
(CURRENTLY ACTIVE)

SP-1

ST-1

FTR-1

SP-3

SP-2

SP-4

SP-5

SP-11

SP-10

SP-8

SP-6

PERMIT  
BOUNDARY

ST-5

ST-4

ST-3

ST-2

SCALE

800

0

800 FT.

CAD: JHG 08/19/05 050558A6.DWG



**Civil & Environmental Consultants, Inc.**

EXPORT, PA PITTSBURGH, PA

(724) 327-5200 • (412) 429-2324

Cincinnati, OH • Columbus, OH • Indianapolis, IN • Nashville, TN

**SURFACE WATER MONITORING  
LOCATION MAP**

**KELLY RUN LANDFILL**

**PERMIT NO. 100663**

DWN. BY: JHG

SCALE

DATE

PROJECT NO:

CHKD. BY: RCD

AS SHOWN

08/19/05

050558

FIGURE B-1



6/30/2006

DEP USE ONLY

Date Received

# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: FTR-1

☐ Well ☐ Spring ☒ Stream ☐ Other

☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 55.50"

Longitude: 79° 52' 38.00"

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 12:05

Sample Collector's Name: C. Salmon - B. Beran

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-008

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.



I.D. No.	100663
Monitoring Point No.	FTR-1
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	241	SM4500-CO2D
Calcium, Total*	96.4	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	80	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	570	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	32.6	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	40	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.66	EPA 300.0
pH (standard units), Field*	8.1	
pH (standard units), Laboratory*	8.37	SM4500-H+B
Potassium, Total*	2.4	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	42.6	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	798.1	
Specific Conductance (µmhos/cm), Laboratory*	775	EPA 120.1
Sulfate*	97	EPA 300.0
Total Alkalinity*	246	SM 18 2320B
Total Dissolved Solids	460	SM2540-C
Total Organic Carbon*	1.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	12.1	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

<sup>†</sup> Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	FTR-1
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: FTR-2

☐ Well ☐ Spring ☒ Stream ☐ Other

☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 11 . 50 "

Longitude: 79 ° 52 ' 43 . 00 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☐ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 12:25

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-006

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form: Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	FTR-2
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.15	EPA 350.1D
Bicarbonate (as Ca CO <sub>3</sub> )*	217	SM4500-CO2D
Calcium, Total*	104	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	75	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	4370	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	36.7	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	210	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.39	EPA 300.0
pH (standard units), Field*	7.16	
pH (standard units), Laboratory*	7.79	SM4500-H+B
Potassium, Total*	2.5	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	103	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1116	
Specific Conductance (µmhos/cm), Laboratory*	1070	EPA 120.1
Sulfate*	298	EPA 300.0
Total Alkalinity*	218	SM 18 2320B
Total Dissolved Solids	712	SM2540-C
Total Organic Carbon*	1.5	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	26.9	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	FTR-2
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

6/30/2006

DEP USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ST-1

☐ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 51 . 60 "

Longitude: 79 ° 52 ' 38 . 40 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 11:55

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-005

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	ST-1
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	244	SM4500-CO2D
Calcium, Total*	98.1	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	79	EPA 300.0
Fluoride	0.1	EPA 300.0
Iron (µg/l), Total	310	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	33.2	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	30	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.65	EPA 300.0
pH (standard units), Field*	8.08	
pH (standard units), Laboratory*	8.35	SM4500-H+B
Potassium, Total*	2.5	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	41.6	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	800	
Specific Conductance (µmhos/cm), Laboratory*	762	EPA 120.1
Sulfate*	97	EPA 300.0
Total Alkalinity*	249	SM 18 2320B
Total Dissolved Solids	450	SM2540-C
Total Organic Carbon*	1.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	13.2	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	ST-1
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.





# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A. SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B. FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ST-2

☐ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 26 . 60 "

Longitude: 79 ° 52 ' 55 . 50 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 11:35

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-010

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	ST-2
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q: Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	239	SM4500-CO2D
Calcium, Total*	97.3	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	73	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	460	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	29	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	50	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.65	EPA 300.0
pH (standard units), Field*	8.09	
pH (standard units), Laboratory*	8.4	SM4500-H+B
Potassium, Total*	2.5	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	36.2	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	746.7	
Specific Conductance (µmhos/cm), Laboratory*	734	EPA 120.1
Sulfate*	75	EPA 300.0
Total Alkalinity*	245	SM 18 2320B
Total Dissolved Solids	424	SM2540-C
Total Organic Carbon*	2.1	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	ST-2
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: ST-3

☐ Well ☐ Spring ☒ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 27.40"

Longitude: 79° 52' 56.50"

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☐ TOC

Casing Stick Up: NA ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☐ Pumped ☐ Bailed ☒ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 11:30

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606195-011

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	ST-3
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	234	SM4500-CO2D
Calcium, Total*	99.5	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	80	EPA 300.0
Fluoride	0.1	EPA 300.0
Iron (µg/l), Total	670	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	41	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	40	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.98	EPA 300.0
pH (standard units), Field*	7.87	
pH (standard units), Laboratory*	8.23	SM4500-H+B
Potassium, Total*	1.7	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	56.5	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	930.1	
Specific Conductance (µmhos/cm), Laboratory*	915	EPA 120.1
Sulfate*	131	EPA 300.0
Total Alkalinity*	238	SM 18 2320B
Total Dissolved Solids	554	SM2540-C
Total Organic Carbon*	1.8	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	26.8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

<sup>†</sup> Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	ST-3
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-312R
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

- 1-A. Metals (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-312R
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.



I.D. No.	100663
Monitoring Point No.	MW-312R
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS (enter all data in ug/l)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-312R
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**4. Qualitatively Identified Organic Compounds**

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
Acetamide	
Benzene, 1-ethyl-3-methyl	
Butane, 2-methyl	
Ethyl Chloride	
Ethyl ether	
Indene	



# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-PZ-1

☒ Well
 ☐ Spring
 ☐ Stream
 ☐ Other

☐ Upgradient/Upstream
 ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 57 . 08 "

Longitude: 79 ° 53 ' 30 . 51 "

Depth to Water Level: 99.40 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.46 ft

Elevation of Water Level: 1019.92 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 12.90 gal.

Total Well Depth: 119.32 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.30

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/05/06

Sample Collection Time: 10:00

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-001

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Slight odor.

I.D. No.	100663
Monitoring Point No.	MW-PZ-1
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as Ca CO <sub>3</sub> )*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	151	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	600	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total*	20	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen		
pH (standard units), Field*	7.43	
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	734	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	2824	
Specific Conductance (µmhos/cm), Laboratory*	2700	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	6.4	SM 19 5310-C
Total Phenolics (µg/l)	10.3	EPA 420.1
Turbidity (NTU)		

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-PZ-1
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane		
1,1-Dichloroethane		
1,1-Dichloroethene		
1,2-Dichloroethane		
Cis-1,2-Dichloroethene		
Trans-1,2-Dichloroethene		
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride		
Tetrachloroethene		
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane		
Trichloroethene		
Vinyl chloride		
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

6/29/2006

DEP USE ONLY

Date Received



# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A. SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B. FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").

Monitoring Point Number: MW-PZ-2

☒ Well
 ☐ Spring
 ☐ Stream
 ☐ Other

☐ Upgradient/Upstream
 ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 14' 55.38"

Longitude: 79° 53' 28.12"

Depth to Water Level: 113.10 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.52 ft

Elevation of Water Level: 1022.84 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 10.60 gal.

Total Well Depth: 129.45 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.30

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): 06/05/06

Sample Collection Time: 10:30

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-002

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Slight odor.

I.D. No.	100663
Monitoring Point No.	MW-PZ-2
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as Ca CO <sub>3</sub> )*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	226	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	1640	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total*	10	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen		
pH (standard units), Field*	7.39	
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	911	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	3248	
Specific Conductance (µmhos/cm), Laboratory*	3180	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	9.2	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)		

- \* Indicator Analyte - For comparison with detection zone analytes.  
† Please indicate detection limit if analyte is not detected.  
\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-PZ-2
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane		
1,1-Dichloroethane		
1,1-Dichloroethene		
1,2-Dichloroethane		
Cis-1,2-Dichloroethene		
Trans-1,2-Dichloroethene		
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride		
Tetrachloroethene		
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane		
Trichloroethene		
Vinyl chloride		
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-PZ-3

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 55 . 38 "

Longitude: 79 ° 53 ' 28 . 12 "

Depth to Water Level: 95.60 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.25 ft

Elevation of Water Level: 1028.79 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 10.00 gal.

Total Well Depth: 111.08 ft

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.35

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/05/06

Sample Collection Time: 11:08

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-003

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - slight odor.

I.D. No.	100663
Monitoring Point No.	MW-PZ-3
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as Ca CO <sub>3</sub> )*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	209	EPA 300.0
Fluoride	0.6	EPA 300.0
Iron (µg/l), Total	7840	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total*	40	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen		
pH (standard units), Field*	6.74	
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*	673	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	2783	
Specific Conductance (µmhos/cm), Laboratory*	2560	EPA 120.1
Sulfate*	<10	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	18.4	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)		

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-PZ-3
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	9.8	EPA 8260B
1,2-Dibromoethane		
1,1-Dichloroethane		
1,1-Dichloroethene		
1,2-Dichloroethane		
Cis-1,2-Dichloroethene		
Trans-1,2-Dichloroethene		
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride		
Tetrachloroethene		
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane		
Trichloroethene		
Vinyl chloride		
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A. SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B. FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-P1U

☒ Well ☐ Spring ☐ Stream ☐ Other☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 56 . 90 "

Longitude: 79 ° 52 ' 50 . 00 "

Depth to Water Level: 19.10 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.43 ft

Elevation of Water Level: 873.63 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 11.50 gal.

Total Well Depth: 36.75 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.30

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 14:25

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606127-003

Final Lab Analysis Completion Date: 6/16/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-P1U
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.41	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	595	SM4500-CO2D
Calcium, Total*	154	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	62	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	160	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	53.5	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	870	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	7	
pH (standard units), Laboratory*	7.5	SM4500-H+B
Potassium, Total*	3.5	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	183	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1623	
Specific Conductance (µmhos/cm), Laboratory*	1580	EPA 120.1
Sulfate*	299	EPA 300.0
Total Alkalinity*	597	SM 18 2320B
Total Dissolved Solids	1060	SM2540-C
Total Organic Carbon*	2.7	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	5.3	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-P1U
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-P1D1

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 16 . 00 "

Longitude: 79 ° 52 ' 51 . 00 "

Depth to Water Level: 21.00 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: 870.18 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 11.60 gal.

Total Well Depth: 38.82 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.17

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 13:35

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606127-005

Final Lab Analysis Completion Date: 6/16/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - slight odor.

I.D. No.	100663
Monitoring Point No.	MW-P1D1
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.16	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	564	SM4500-CO2D
Calcium, Total*	95.7	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	88	EPA 300.0
Fluoride	0.4	EPA 300.0
Iron (µg/l), Total	210	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	30.2	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	60	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.05	EPA 300.0
pH (standard units), Field*	7.08	
pH (standard units), Laboratory*	7.91	SM4500-H+B
Potassium, Total*	2	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	205	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1372	
Specific Conductance (µmhos/cm), Laboratory*	1330	EPA 120.1
Sulfate*	93	EPA 300.0
Total Alkalinity*	568	SM 18 2320B
Total Dissolved Solids	822	SM2540-C
Total Organic Carbon*	1.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	8.8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).

Remaining quarterly samples only require total metals analysis.



I.D. No.	100663
Monitoring Point No.	MW-P1D1
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-P1D2

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 16 . 00 "

Longitude: 79 ° 52 ' 48 . 00 "

Depth to Water Level: 27.00 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: 861.43 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 9.80 gal.

Total Well Depth: 42.12 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.50

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 13:55

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606127-004

Final Lab Analysis Completion Date: 6/16/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-P1D2
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	465	SM4500-CO2D
Calcium, Total*	146	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	109	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	2300	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	42.6	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	870	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.73	
pH (standard units), Laboratory*	7.35	SM4500-H+B
Potassium, Total*	2.3	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	117	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1330	
Specific Conductance (µmhos/cm), Laboratory*	1330	EPA 120.1
Sulfate*	154	EPA 300.0
Total Alkalinity*	466	SM 18 2320B
Total Dissolved Solids	826	SM2540-C
Total Organic Carbon*	3.3	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	3.2	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-P1D2
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised  
4/12/2005

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-P2U

☒ Well ☐ Spring ☐ Stream ☐ Other

☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 58 . 90 "

Longitude: 79 ° 52 ' 46 . 80 "

Depth to Water Level: \_\_\_\_\_ ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: \_\_\_\_\_ ft

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: \_\_\_\_\_ ft

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: \_\_\_\_\_ ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ Grab

Well Purged: ☒ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☐ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-P2D1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 54 . 60 "

Longitude: 79 ° 52 ' 49 . 00 "

Depth to Water Level: 92.50 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: 870.67 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 2.60 gal.

Total Well Depth: 96.50 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.48

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 10:10

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field:

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606196-003

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Slight odor.

I.D. No.	100663
Monitoring Point No.	MW-P2D1
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	252	SM4500-CO2D
Calcium, Total*	116	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	33	EPA 300.0
Fluoride	0.3	EPA 300.0
Iron (µg/l), Total	< 50	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	42.1	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	< 10	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.29	EPA 300.0
pH (standard units), Field*	6.59	
pH (standard units), Laboratory*	7.02	SM4500-H+B
Potassium, Total*	3.5	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	25.1	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	840.1	
Specific Conductance (µmhos/cm), Laboratory*	809	EPA 120.1
Sulfate*	169	EPA 300.0
Total Alkalinity*	252	SM 18.2320B
Total Dissolved Solids	516	SM2540-C
Total Organic Carbon*	2	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	0.4	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-306
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**4. Qualitatively Identified Organic Compounds**

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
1-Propanesulfonyl chloride	
Cyclohexane, methyl-	
Ethyl ether	
Indane	
Isobutane	





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-307

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 47 . 90 "

Longitude: 79 ° 53 ' 23 . 41 "

Depth to Water Level: 158.10 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.96 ft

Elevation of Water Level: 1006.97 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 6.60 gal.

Total Well Depth: 168.20 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.30

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 12:00

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-008

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-307
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	1.95	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	1330	SM4500-CO2D
Calcium, Total*	46.9	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	90	HACH 8000
Chloride*	461	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l); Total	2890	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	21.3	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	30	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.82	
pH (standard units), Laboratory*	7.19	SM4500-H+B
Potassium, Total*	4.7	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	858	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	3621	
Specific Conductance (µmhos/cm), Laboratory*	3280	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*	1330	SM 18 2320B
Total Dissolved Solids	2100	SM2540-C
Total Organic Carbon*	25.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	28.8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-307
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-307
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

1-A. Metals (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-307
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-307
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-307
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**4. Qualitatively Identified Organic Compounds**

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
Benzene, (2-methyl-2-propenyl)	
Ethyl ether	
Indane	
Propane, 2-methoxy-	
Tetrahydrofuran	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

4/6/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-310D

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 42 . 80 "

Longitude: 79 ° 53 ' 1 . 48 "

Depth to Water Level: \_\_\_\_\_ ft.

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.90 ft.

Elevation of Water Level: \_\_\_\_\_ ft./MSL

Sampling Depth: NA ft.

Volume of Water Column: \_\_\_\_\_ gal.

Total Well Depth: 128.84 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: \_\_\_\_\_

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): \_\_\_\_\_

Sample Collection Time: \_\_\_\_\_

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: \_\_\_\_\_

Final Lab Analysis Completion Date: \_\_\_\_\_

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Insufficient water to sample.





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

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Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-310R

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 42 . 80 "

Longitude: 79 ° 53 ' 1 . 48 "

Depth to Water Level: 105.70 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.66 ft

Elevation of Water Level: 993.69 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: gal.

Total Well Depth: 108.81 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy):

Sample Collection Time:

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number:

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Insufficient water.



Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

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General References: Section 273.284

Federal Regulations; Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-311

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 43 . 39 "

Longitude: 79 ° 53 ' 8 . 75 "

Depth to Water Level: 103.70 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.33 ft

Elevation of Water Level: 996.67 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 8.50 gal.

Total Well Depth: 116.85 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.30

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 12:50

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606194-003

Final Lab Analysis Completion Date: 6/27/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - slight odor.

I.D. No.	100663
Monitoring Point No.	MW-311
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.65	EPA 350.1
Bicarbonate (as Ca <sub>CO</sub> <sub>3</sub> )*	984	SM4500-CO2D
Calcium, Total*	24.3	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	140	HACH 8000
Chloride*	2480	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	1230	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	12.4	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	20	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.13	EPA 300.0
pH (standard units), Field*	7.36	
pH (standard units), Laboratory*	7.88	SM4500-H+B
Potassium, Total*	5.3	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	1980	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	8737	
Specific Conductance (µmhos/cm), Laboratory*	8710	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*	991	SM 18 2320B
Total Dissolved Solids	4870	SM2540-C
Total Organic Carbon*	44.4	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	9.8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

<sup>†</sup> Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-311
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in µg/l)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-311
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**1-A. Metals (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.**

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	20	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-311
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-311
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-311
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**4. Qualitatively Identified Organic Compounds**

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
3-Octene, (Z)-	





# FORM 19 MUNICIPAL WASTE LANDFILL QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

## SECTION A: SITE IDENTIFIER

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

## SECTION B: FACILITY INFORMATION

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-312R

☒ Well
 ☐ Spring
 ☐ Stream
 ☐ Other

☐ Upgradient/Upstream
 ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 44 . 40 "

Longitude: 79 ° 53 ' 19 . 70 "

Depth to Water Level: 170.00 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.79 ft

Elevation of Water Level: 1001.46 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 8.20 gal.

Total Well Depth: 182.65 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.50

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 14:05

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606194-001

Final Lab Analysis Completion Date: 6/27/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Moderate odor.

I.D. No.	100663
Monitoring Point No.	MW-312R
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	19.2	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	1010	SM4500-CO2D
Calcium, Total*	184	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	260	HACH 8000
Chloride*	1870	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	1920	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	101	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	50	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.11	EPA 300.0
pH (standard units), Field*	6.54	
pH (standard units), Laboratory*	7.04	SM4500-H+B
Potassium, Total*	18.7	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	1200	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	6766	
Specific Conductance (µmhos/cm), Laboratory*	6770	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*	1010	SM 18 2320B
Total Dissolved Solids	3860	SM2540-C
Total Organic Carbon*	61.5	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	39.6	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-312R
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

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6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-304

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 57 . 06 "

Longitude: 79 ° 52 ' 55 . 85 "

Depth to Water Level: 49.20 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.33 ft

Elevation of Water Level: 1005.94 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 9.70 gal.

Total Well Depth: 64.15 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.40

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/05/06

Sample Collection Time: 14:40

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-006

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Moderate odor.

I.D. No.	100663
Monitoring Point No.	MW-304
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	< 0.10	EPA 350.1
Bicarbonate (as Ca.Co <sub>3</sub> )*	706	SM4500-CO2D
Calcium, Total*	185	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	6	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	440	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	87.2	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	1150	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.73	
pH (standard units), Laboratory*	6.96	SM4500-H+B
Potassium, Total*	2.3	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	12.9	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1324	
Specific Conductance (µmhos/cm), Laboratory*	1280	EPA 120.1
Sulfate*	126	EPA 300.0
Total Alkalinity*	707	SM 18 2320B
Total Dissolved Solids	816	SM2540-C
Total Organic Carbon*	2.5	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	3.7	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-304
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-304
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

1-A. Metals (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-304
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.



I.D. No.	100663
Monitoring Point No.	MW-304
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-304
Sample Date	6/5/2006

FORM 19  
ANNUAL WATER QUALITY ANALYSES

4. Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
Isobutane	
Sulfur Dioxide	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-306

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 46 : 07 "

Longitude: 79 ° 53 ' 9 . 98 "

Depth to Water Level: 117.70 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 0.83 ft

Elevation of Water Level: 1001.38 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 13.30 gal.

Total Well Depth: 138.08 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.15

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/07/06

Sample Collection Time: 13:25

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606194-002

Final Lab Analysis Completion Date: 6/27/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Moderate odor.

I.D. No.	100663
Monitoring Point No.	MW-306
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	3.84	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	1160	SM4500-CO2D
Calcium, Total*	95.5	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	150	HACH 8000
Chloride*	994	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	8160	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	54.5	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	110	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.59	
pH (standard units), Laboratory*	6.98	SM4500-H+B
Potassium, Total*	9.6	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	1010	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	4719	
Specific Conductance (µmhos/cm), Laboratory*	4630	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*	1160	SM 18 2320B
Total Dissolved Solids	2600	SM2540-C
Total Organic Carbon*	49.9	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	101	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-306
Sample Date	6/7/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	25.4	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-306
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

- 1-A. Metals (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-306
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-306
Sample Date	6/7/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected



I.D. No.	100663
Monitoring Point No.	MW-302
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	70.4	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	6	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-302
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**1-A. Metals** (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-302
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-302
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS (enter all data in ug/l)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-302
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**4. Qualitatively Identified Organic Compounds**

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
2-Methyl-1-propanol	
Chlorobenzene	
Ethyl ether	
Isopropylbenzene	
n-Propylbenzene	
Tetrahydrofuran	

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-303R

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 55 . 61 "

Longitude: 79 ° 53 ' 4 . 62 "

Depth to Water Level: NA ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.97 ft

Elevation of Water Level: NA ft./MSL

Sampling Depth: NA ft

Volume of Water Column: NA gal.

Total Well Depth: NA ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: NA

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/05/06

Sample Collection Time: 12:47

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-004

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-303R
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	1.64	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	710	SM4500-CO2D
Calcium, Total*	210	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	< 10	HACH 8000
Chloride*	14	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	4940	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	47.7	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	840	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	7.34	
pH (standard units), Laboratory*	7.25	SM4500-H+B
Potassium, Total*	4.9	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	15.3	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	1223	
Specific Conductance (µmhos/cm), Laboratory*	1180	EPA 120.1
Sulfate*	32	EPA 300.0
Total Alkalinity*	711	SM 18 2320B
Total Dissolved Solids	742	SM2540-C
Total Organic Carbon*	4.4	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	13.9	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

<sup>†</sup> Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-303R
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	10.4	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



I.D. No.	100663
Monitoring Point No.	MW-303R
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**1-A. Metals** (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-303R
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-211R1
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

1-Q. Inorganics (Enter all data in mg/l except as noted)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	4.83	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	224	SM4500-CO2D
Calcium, Total*	218	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	57	HACH 8000
Chloride*	1230	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	47200	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	88.6	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	980	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.26	
pH (standard units), Laboratory*	6.21	SM4500-H+B
Potassium, Total*	9.1	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	728	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	4780	
Specific Conductance (µmhos/cm), Laboratory*	4290	EPA 120.1
Sulfate*	447	EPA 300.0
Total Alkalinity*	224	SM 18 2320B
Total Dissolved Solids	2660	SM2540-C
Total Organic Carbon*	14.8	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	18.2	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-211R1
Sample Date	6/5/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-211R1
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**1-A. Metals (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.**

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	< 5.0	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-211R1
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-211R1
Sample Date	6/5/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-211R1
Sample Date	6/5/2006

FORM 19  
ANNUAL WATER QUALITY ANALYSES

4. Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
Ethyl Ether	
Propiolonitrile	



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-212

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: ° ' "

Longitude: ° ' "

Depth to Water Level: ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: ft./MSL

Sampling Depth: ft

Volume of Water Column: gal.

Total Well Depth: 255.20 ft.

Sampling Method: ☐ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy):

Sample Collection Time:

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number:

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Dry.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

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Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-213R

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 38 . 20 "

Longitude: 79 ° 53 ' 4 . 20 "

Depth to Water Level: 154.50 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 3.42 ft

Elevation of Water Level: 850.87 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 5.10 gal.

Total Well Depth: 162.34 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.24

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 09:35

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606196-002

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear - Slight odor.

I.D. No.	100663
Monitoring Point No.	MW-213R
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.38	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	747	SM4500-CO2D
Calcium, Total*	34.4	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	11	HACH 8000
Chloride*	368	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	640	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	19.4	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	170	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.81	
pH (standard units), Laboratory*	8.55	SM4500-H+B
Potassium, Total*	3.3	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	568	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	2510	
Specific Conductance (µmhos/cm), Laboratory*	2530	EPA 120.1
Sulfate*	73	EPA 300.0
Total Alkalinity*	772	SM 18 2320B
Total Dissolved Solids	1380	SM2540-C
Total Organic Carbon*	5	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	5.3	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-213R
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/30/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

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General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-214

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 34 . 20 "

Longitude: 79 ° 53 ' 17 . 20 "

Depth to Water Level: 184.00 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.20 ft

Elevation of Water Level: 851.72 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 1.70 gal.

Total Well Depth: 186.62 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.40

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): 06/08/06

Sample Collection Time: 10:40

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606196-001

Final Lab Analysis Completion Date: 6/22/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Slight odor.

I.D. No.	100663
Monitoring Point No.	MW-214
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.74	EPA 350.1D
Bicarbonate (as Ca CO <sub>3</sub> )*	219	SM4500-CO2D
Calcium, Total*	208	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	14	HACH 8000
Chloride*	103	EPA 300.0
Fluoride	0.4	EPA 300.0
Iron (µg/l), Total	120000	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	61	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	990	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.2	
pH (standard units), Laboratory*	6.22	SM4500-H+B
Potassium, Total*	4.8	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	274	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	2500	
Specific Conductance (µmhos/cm), Laboratory*	2300	EPA 120.1
Sulfate*	1130	EPA 300.0
Total Alkalinity*	219	SM 18 2320B
Total Dissolved Solids	1870	SM2540-C
Total Organic Carbon*	3.3	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	91	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-214
Sample Date	6/8/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

Date Prepared/Revised

4/5/2006

DEPT USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-301R

☒ Well ☐ Spring ☐ Stream ☐ Other☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40° 15' 10" . 90"

Longitude: 79° 53' 14" . 30"

Depth to Water Level: ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.00 ft

Elevation of Water Level: ft./MSL

Sampling Depth: ft

Volume of Water Column: gal.

Total Well Depth: 135.85 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged:

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy):

Sample Collection Time:

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number:

Final Lab Analysis Completion Date:

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Insufficient water to purge and sample.



Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-302

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 52 . 18 "

Longitude: 79 ° 53 ' 13 . 77 "

Depth to Water Level: 149.00 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 1.79 ft

Elevation of Water Level: 1005.41 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 13.80 gal.

Total Well Depth: 170.26 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.14

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 09:40

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-009

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-302
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	63.9	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	793	SM4500-CO2D
Calcium, Total*	585	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	2300	HACH 8000
Chloride*	3530	EPA 300.0
Fluoride	< 0.1	EPA 300.0
Iron (µg/l), Total	3880	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	322	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	140	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	< 0.05	EPA 300.0
pH (standard units), Field*	6.22	
pH (standard units), Laboratory*	6.72	SM4500-H+B
Potassium, Total*	45.5	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	1360	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	11460	
Specific Conductance (µmhos/cm), Laboratory*	10500	EPA 120.1
Sulfate*	< 10	EPA 300.0
Total Alkalinity*	793	SM 18 2320B
Total Dissolved Solids	6330	SM2540-C
Total Organic Carbon*	74.1	SM 19 5310-C
Total Phenolics (µg/l)	34.4	EPA 420.1
Turbidity (NTU)	16.6	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4). Remaining quarterly samples only require total metals analysis.



COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-201R

☒ Well ☐ Spring ☐ Stream ☐ Other☒ Upgradient/Upstream ☐ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 15 ' 13 . 92 "

Longitude: 79 ° 53 ' 14 . 00 "

Depth to Water Level: 272.90 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.17 ft

Elevation of Water Level: 885.23 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 2.30 gal.

Total Well Depth: 276.44 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.26

Sample Field Filtered (must be 0.45 micron)? ☐ Yes ☒ No

Spring Flow Rate: \_\_\_\_\_ GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 08:50

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-010

Final Lab Analysis Completion Date: 6/9/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.

I.D. No.	100663
Monitoring Point No.	MW-201R
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*		
Bicarbonate (as Ca CO <sub>3</sub> )*		
Calcium, Total*		
Calcium, Dissolved**		
Chemical Oxygen Demand*		
Chloride*	50	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total		
Iron (µg/l), Dissolved**		
Magnesium, Total*		
Magnesium, Dissolved**		
Manganese (µg/l), Total*		
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.13	EPA 300.0
pH (standard units), Field*	6.62	
pH (standard units), Laboratory*		
Potassium, Total*		
Potassium, Dissolved**		
Sodium, Total*		
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*		
Specific Conductance (µmhos/cm), Laboratory*	1452	
Sulfate*	514	EPA 300.0
Total Alkalinity*		
Total Dissolved Solids		
Total Organic Carbon*	1.2	SM 19 5310-C
Total Phenolics (µg/l)		
Turbidity (NTU)	5.8	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
 Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-201R
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-201R
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**1-A. Metals** (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total		
Arsenic, Dissolved		
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total		
Chromium, Dissolved		
Copper, Total		
Copper, Dissolved		
Lead, Total		
Lead, Dissolved		
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-201R
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-201R
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl Iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected



I.D. No.	100663
Monitoring Point No.	MW-201R
Sample Date	6/6/2006

FORM 19  
ANNUAL WATER QUALITY ANALYSES

4. Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
None Detected	

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

# FORM 19

## MUNICIPAL WASTE LANDFILL

### QUARTERLY AND ANNUAL WATER QUALITY ANALYSES

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-204

☒ Well ☐ Spring ☐ Stream ☐ Other☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 48 . 00 "

Longitude: 79 ° 53 ' 23 . 00 "

Depth to Water Level: 294.50 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: ft

Elevation of Water Level: 868.75 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 10.10 gal.

Total Well Depth: 310.00 ft.

Sampling Method: ☐ Pumped ☒ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 1.10

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/06/06

Sample Collection Time: 11:20

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-007

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Turbulent.

I.D. No.	100663
Monitoring Point No.	MW-204
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**ANALYTES**

**1-Q. Inorganics (Enter all data in mg/l except as noted)**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Ammonia-Nitrogen*	0.65	EPA 350.1
Bicarbonate (as Ca CO <sub>3</sub> )*	231	SM4500-CO2D
Calcium, Total*	171	EPA 200.7
Calcium, Dissolved**		
Chemical Oxygen Demand*	12	HACH 8000
Chloride*	78	EPA 300.0
Fluoride	0.2	EPA 300.0
Iron (µg/l), Total	54900	EPA 200.7
Iron (µg/l), Dissolved**		
Magnesium, Total*	52.3	EPA 200.7
Magnesium, Dissolved**		
Manganese (µg/l), Total*	840	EPA 200.7
Manganese (µg/l), Dissolved**		
Nitrate-Nitrogen	0.12	EPA 300.0
pH (standard units), Field*	6.5	
pH (standard units), Laboratory*	6.59	SM4500-H+B
Potassium, Total*	3.7	EPA 200.7
Potassium, Dissolved**		
Sodium, Total*	233	EPA 200.7
Sodium, Dissolved**		
Specific Conductance (µmhos/cm), Field*	2158	
Specific Conductance (µmhos/cm), Laboratory*	1770	EPA 120.1
Sulfate*	800	EPA 300.0
Total Alkalinity*	231	SM 18 2320B
Total Dissolved Solids	1430	SM2540-C
Total Organic Carbon*	2.8	SM 19 5310-C
Total Phenolics (µg/l)	< 10.0	EPA 420.1
Turbidity (NTU)	252	EPA 180.1

\* Indicator Analyte - For comparison with detection zone analytes.

† Please indicate detection limit if analyte is not detected.

\*\* Total and dissolved analysis required only in conjunction with additional annual metals sampling (see page 4).  
Remaining quarterly samples only require total metals analysis.

I.D. No.	100663
Monitoring Point No.	MW-204
Sample Date	6/6/2006

**FORM 19**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

**2-Q. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Benzene	< 5.0	EPA 8260B
1,2-Dibromoethane	< 5.0	EPA 8260B
1,1-Dichloroethane	< 5.0	EPA 8260B
1,1-Dichloroethene	< 5.0	EPA 8260B
1,2-Dichloroethane	< 5.0	EPA 8260B
Cis-1,2-Dichloroethene	< 5.0	EPA 8260B
Trans-1,2-Dichloroethene	< 5.0	EPA 8260B
Ethyl Benzene	< 5.0	EPA 8260B
Methylene chloride	< 5.0	EPA 8260B
Tetrachloroethene	< 5.0	EPA 8260B
Toluene	< 5.0	EPA 8260B
1,1,1,-Trichloroethane	< 5.0	EPA 8260B
Trichloroethene	< 5.0	EPA 8260B
Vinyl chloride	< 2.0	EPA 8260B
Xylene	< 5.0	EPA 8260B

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-204
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**1-A. Metals** (Enter all data in  $\mu\text{g/l}$ ) If initial background analyses or four consecutive annual analyses show essentially identical (within 5%) dissolved and total analyses, dissolved analyses may not be required, subject to written DEP approval.

ANALYTE	VALUE	ANALYSIS METHOD NUMBER
Arsenic, Total	< 10	EPA 200.8
Arsenic, Dissolved	< 10	EPA 200.8D
Barium, Total		
Barium, Dissolved		
Cadmium, Total		
Cadmium, Dissolved		
Chromium, Total	< 10	EPA 200.7
Chromium, Dissolved	< 10	EPA 200.7D
Copper, Total		
Copper, Dissolved		
Lead, Total	7.1	EPA 200.8
Lead, Dissolved	< 5.0	EPA 200.8D
Mercury, Total		
Mercury, Dissolved		
Selenium, Total		
Selenium, Dissolved		
Silver, Total		
Silver, Dissolved		
Zinc, Total		
Zinc, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		
, Total		
, Dissolved		

† Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-204
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**2-A. Organics (Enter all data in  $\mu\text{g/l}$ )**

ANALYTE	VALUE <sup>†</sup>	ANALYSIS METHOD NUMBER
Bromoform (Tribromomethane)		
Bromomethane (Methyl Bromide)		
Carbon tetrachloride		
Chlorobenzene		
Chloroethane (Ethyl Chloride)		
Dibromochloromethane (Chlorodibromomethane)		
Methyl Chloride (Chloromethane)		
3-Chloro-1-propene		
1,2-Dichlorobenzene (o-Dichlorobenzene)		
1,3-Dichlorobenzene (m-Dichlorobenzene)		
1,4-Dichlorobenzene (p-Dichlorobenzene)		
Dichlorodifluoromethane		
1, 2-Dichloropropane (Propylene Dichloride)		
Cis-1, 3-Dichloropropene		
Trans-1, 3-Dichloropropene		
Methyl Ethyl Ketone (2-Butanone)		
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)		
1,1,1,2-Tetrachloroethane		
1,1,2,2-Tetrachloroethane		
1,1,2-Trichloroethane		
Trichlorofluoromethane (CFC-11)		
1,2,3-Trichloropropane		

<sup>†</sup> Please indicate detection limit if analyte is not detected.

I.D. No.	100663
Monitoring Point No.	MW-204
Sample Date	6/6/2006

**FORM 19**  
**ANNUAL WATER QUALITY ANALYSES**

**SUBTITLE D - Detection Zone Add-On List:** When the MCL of any analyte is exceeded in the detection zone Form 50 monitoring, the following analytes must be monitored annually in the ground water monitoring wells.

**ORGANICS AND METALS** (enter all data in ug/l)

ANALYTE	VALUE †	ANALYSIS METHOD NUMBER
Acetone		
Acrylonitrile		
Bromochloromethane (Chlorobromomethane)		
Bromodichloromethane (Dichlorobromomethane)		
Carbon Disulfide		
Chloroform (Trichloromethane)		
1,2-Dibromo-3-Chloropropane (DBCP)		
trans-1,4-Dichloro-2-Butene		
Methyl butyl ketone (2-Hexanone)		
Methylene bromide (Dibromomethane)		
Methyl iodide (Iodomethane)		
Styrene		
Vinyl Acetate		
Antimony, Total		
Beryllium, Total		
Cobalt, Total		
Nickel, Total		
Thallium, Total		
Vanadium, Total		

†Please indicate detection limit if analyte is not detected

I.D. No.	100663
Monitoring Point No.	MW-204
Sample Date	6/6/2006

FORM 19  
ANNUAL WATER QUALITY ANALYSES

4. Qualitatively Identified Organic Compounds

List at least ten volatile organic compounds not otherwise identified in this section. Their identification should be based upon those compounds showing the greatest apparent concentration from the peaks of a mass spectrum of each sample. These ten compounds shall be identified but the concentration of each is not required.

<u>Constituent</u>	<u>CAS Number</u>
Carbon Disulfide	





COMMONWEALTH OF PENNSYLVANIA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
RECYCLING AND WASTE MANAGEMENT

Date Prepared/Revised

6/29/2006

DEP USE ONLY

Date Received

**FORM 19**  
**MUNICIPAL WASTE LANDFILL**  
**QUARTERLY AND ANNUAL WATER QUALITY ANALYSES**

This form must be fully and accurately completed. All required information must be typed or legibly printed in the spaces provided. If additional space is necessary, identify each attached sheet as Form 19, reference the item number and identify the date prepared. The "date prepared/revised" on any attached sheets needs to match the "date prepared/revised" on this page.

General References: Section 273.284

Federal Regulations, Subtitle D: 258.54 and Appendix I to Part 258.

**SECTION A: SITE IDENTIFIER**

Applicant/permittee: Kelly Run Sanitation

Site Name: Kelly Run Sanitation

Facility ID (as issued by DEP): 100663

**SECTION B: FACILITY INFORMATION**

Monitoring wells must be designed and constructed in accordance with Department standards. **INDICATE THE LATITUDE AND LONGITUDE TO THE NEAREST ONE TENTH OF A SECOND (DD° MM' SS.SS").**

Monitoring Point Number: MW-211R1

☒ Well ☐ Spring ☐ Stream ☐ Other

☐ Upgradient/Upstream ☒ Downgradient/Downstream

Location: County Allegheny

Municipality: Township of Forward

Sampling Point: Latitude: 40 ° 14 ' 57 . 77 "

Longitude: 79 ° 53 ' 6 . 70 "

Depth to Water Level: 193.50 ft

Measured from: ☐ Land Surface ☒ TOC

Casing Stick Up: 2.71 ft

Elevation of Water Level: 870.50 ft./MSL

Sampling Depth: NA ft

Volume of Water Column: 2.20 gal.

Total Well Depth: 196.92 ft.

Sampling Method: ☒ Pumped ☐ Bailed ☐ GrabWell Purged: ☒ Yes ☐ No

Well Volumes Purged: 0.60

Sample Field Filtered (must be 0.45 micron)? ☒ Yes ☐ No

Spring Flow Rate: GPM

Sample Date (mm/dd/yy): 06/05/06

Sample Collection Time: 13:20

Sample Collector's Name: C. Salmon - G. Stewart

Sample Collector's Affiliation: Beran Environmental

Laboratory(ies) Performing Analysis: Geochemical Testing

Were any holding times exceeded? ☐ Yes ☒ No If yes, please explain in comments field.

Lab Certification Number(s): E87642FL and 56-306PA

Lab Sample Number: G0606125-005

Final Lab Analysis Completion Date: 6/21/2006

Name/Affiliation of Person who Filled out Form Geochemical Testing

Comments: Clear.